The University of Michigan Kellogg Eye Center is set to expand, adding state-of-the-art research laboratories and new clinics to serve the many patients who will be looking for advanced eye care and new treatments in the coming years.

The $120M expansion was approved in July by the UM Board of Regents. By early next year, planners expect to have schematic renderings of the 215,000 square foot building.

The new facility, to be located next to the current Kellogg research tower, will increase by 50 percent the space for vision research, education and patient care within the Eye Center.

Paul R. Lichter, M.D., Chair of the UM Department of Ophthalmology and Visual Sciences and Director of the Kellogg Eye Center, says the new facility will provide much needed space for efforts that will directly serve patients.

“Diseases like macular degeneration impair the vision of older Americans just as they reach the golden years of life,” he says. “Expanding our research laboratories will allow us to increase the pace of research toward a cure for macular degeneration and other diseases.”

Leonard Miller gives $1M for UM Kellogg Eye Center expansion

A sense of timing and a commitment to Michigan have been constants throughout Leonard (Larry) G. Miller’s career. Now he has made a timely and generous gift of $1M to help launch a major expansion of the University of Michigan Kellogg Eye Center.

“Larry Miller has offered a leadership gift that comes at a key moment in our building campaign,” says Paul R. Lichter, M.D., chair of the Department of Ophthalmology and Visual Sciences and Director of the W.K. Kellogg Eye Center. “His generosity will help us to develop the facilities our scientists need to sustain their leadership in vision research. Larry understands the importance of high quality physical space in scientific discovery.”

Mr. Miller was a founding partner of Molmec, Inc., a major supplier of molded plastic components for the automotive industry. The company, located in Walled Lake, Michigan, manufactured trim pieces, door handles, fasteners, fans and shrouds, as well as carburetors and timing gears for small engines.

Molmec introduced many innovations over the years, including a quieter, more efficient automotive fan based on technology used to develop silent torpedo thrusters.

Leonard Miller gives $1M for UM Kellogg Eye Center expansion

Celebrating 20 years of very special children’s eye care

Dr. Monte Del Monte remembers a young basketball player who came to the pediatric ophthalmology clinic 12 years ago with very poor vision from a traumatic cataract. “We were able to perform microsurgical cataract removal, implant an intraocular lens, and have him back on the court two weeks later. Not too long after that, he went on to sink the winning shot in the state basketball championship finals.”

The young athlete is just one of the thousands of patients who have had their lives changed by the caring and expert pediatric ophthalmologists and orthoptists in the Skillman Children’s Eye Care Clinic at the UM Kellogg Eye Center.

For 20 years, the clinic has served as a model for other pediatric ophthalmology programs thanks to generous funding from the Skillman Foundation. The gift also enabled the Department to support a research laboratory and to create the Skillman Professorship, the very first endowed chair for pediatric ophthalmology.

Carol Goss, President and CEO of the Skillman Foundation, notes, “The Kellogg Eye Center does some amazing things for young patients, so we’re extremely pleased that the Skillman Foundation was able to help advance the pediatric work of the University’s Department of Ophthalmology.”

When Dr. Del Monte was named the first Skillman Professor in 2000, he established the Skillman Children’s Eye Care Clinic to build on the momentum of the 20th anniversary and to ensure that the clinic could continue to be a leader in the field of pediatric ophthalmology.
Dear Friends,

This year marks several milestones in the history of the Department. The big news is that we have just received approval for a major expansion of the Eye Center. We expect architectural renderings early next year, followed by groundbreaking in late 2006 or early 2007.

We are also celebrating the 20th anniversary of the W.K. Kellogg Eye Center. In 1985 we experienced the excitement that comes when an institution enters a period of rapid growth. The same is true today, and has no doubt been repeated many times since 1872, when the Department was established. Follow the timeline below for a glimpse at some of our achievements along the way.

Twenty years ago, the W.K. Kellogg Foundation provided a very generous grant to help build a state-of-the-art facility, allowing us to bring together researchers and clinicians who were then located in some seven different buildings throughout the medical center. The idea, which has yielded returns many times over, was to provide common space for faculty to share ideas that would spark new directions in vision research.

In addition, this beautiful new facility allowed us to recruit top faculty from around the nation to advance clinical care, teaching, and vision research. From 15 faculty in 1985, we now have 47 clinical and 14 research faculty. If our goals for growth appeared ambitious then, you have only to look today at our bustling clinics and crowded research laboratories to see their merit.

Now, as we look ahead to expanded clinical, research and educational facilities, we can leverage many more resources against today’s most urgent challenges. Our foremost goal is to defeat diseases that alter the lives of so many older individuals just as they are reaching retirement. We intend to increase the pace of research toward a cure for macular degeneration and other blinding diseases.

We also expect new opportunities for collaborative research on the eye-related complications of diabetes. Our facility will also be home to the newly endowed Brehm Center, which has the goal of finding a cure for Type 1 diabetes. The proximity of this innovative center will certainly give rise to new concepts for understanding both diabetes and related eye disease.

Our current prospects could not be realized without the help of many people within both the Health System and the University leadership. I also wish to thank many others, including our faculty, alumni, staff, patients, friends, and donors who join us in looking ahead to the promise of the next 20 years and more.

Paul R. Lichter, M.D.
F. Bruce Fralick Professor of Ophthalmology
Chair, University of Michigan Department of Ophthalmology and Visual Sciences
Director, W.K. Kellogg Eye Center

Building, from page 1

“More space will also allow us to care for an expanding patient base, educate future scientists and clinicians, and continue to bring outstanding eye care and research to our community,” he adds.

When the building opens, patients will find cutting-edge clinical space and technology, a patient education center, expanded services such as genetic testing and genetic counseling, and a dedicated clinical trials unit.

With new research laboratories, Kellogg scientists can devote more resources toward understanding and treating diseases such as glaucoma, age-related macular degeneration, retinitis pigmentosa and diabetes-related eye disease.

The new facility will also be home to the Delores S. and William K. Brehm Center for Type 1 Diabetes Research and Analysis. The Brehm Center, named after the Virginia couple whose gift made it possible, has the goal of accelerating research to find a cure for Type 1 diabetes.

Diabetic eye disease is a major complication of diabetes and is one of the leading causes of blindness. “That connection suggests opportunities for collaboration among Kellogg and Brehm researchers,” says Robert P. Kelch, M.D., UM Executive Vice President for Medical Affairs and CEO of the UM Health System.

“Having vision and diabetes researchers in the same building may foster cross-disciplinary interactions that lead to new discoveries.”

The new facility is also needed because projected increases in patient demand will exert a tremendous strain on current clinics. Patient visits to the Kellogg Eye Center have more than tripled in the last 20 years, from about 37,000 in 1985 to just over 127,000 this year.

The growth in patient volume is further magnified by a shift in demographics. The much talked-about baby boom generation is now approaching retirement age, and its members will begin to experience eye disorders common among the over-60 population. In fact, by 2025, the number of Michigan residents over the age of 65 will increase by 52 percent.

Dr. Lichter served as Chair of the Department when the current Kellogg Eye Center was completed in 1985. At that time, the goal of the new center was to bring together the ophthalmic clinicians and researchers who were scattered throughout the medical campus. Now, says Dr. Lichter, the new facility will allow the growth that is the key to achieving a new level of excellence.

“We are ranked among the top eye departments in the country as it is now,” says Dr. Lichter. “With this new facility and the recruitment of additional clinicians, scientists and educators, we expect our Department to be in the very forefront — not only of departments of ophthalmology, research, and vision science in this country — but in the world.”

EYE CENTER EXPANSION

Projected space allocation in the new 215,000 square foot building.

1. CLINICAL AND EDUCATIONAL
2. CLINICAL
3. SURGERY
4. RESEARCH
5. RESEARCH
6. BREHM CENTER
7. BREHM CENTER
8. MECHANICAL

[1872] Regents establish the Department of Ophthalmology. It is the fourth oldest department in the country.

[1915] Typical operating room scene under the supervision of Department Chair, Walter Parker, M.D.

[1940] Department resident, Harold F. Falls, M.D., begins the work that will establish him as the undisputed leader of ophthalmic genetics.

[1955] The Department makes a commitment to basic research with the appointment of Matthew Alpern, Ph.D., as its first full-time vision research faculty member. Dr. Alpern would become one of the world’s foremost experts in color vision and a member of the National Academy of Sciences.
Professor of Pediatric Ophthalmology in 1985, many colleagues called to congratulate him. Soon thereafter he received a second wave of calls, this time from chairs of ophthalmology departments who wanted advice on setting up similar programs in their institutions.

The clinic has grown in size and reputation over the years, with 8,100 patient visits and 1,000 surgeries this year. Many patients come because friends and relatives tell them about the excellent care they will receive; others are referred by ophthalmologists and pediatricians for state-of-the-art technology combined with the uniquely child-friendly approach to eye care that is practiced in Kellogg's Skillman Clinic.

"The whole concept of examining a child's eyes requires special techniques that aren't generally taught in residency programs," says Dr. Del Monte. "If you want the child to look at the light or focus on a target, you may need to make funny noises, tell a joke, or insert a toy animal into your conversation."

Colorfully illustrated thank-you notes and a wall of snapshots sent by grateful patients and parents are proof that Dr. Del Monte and his colleagues have won over their young patients.

Some of these messages come from the parents of children with retinoblastoma, the most common eye cancer in children. Steven Archer, M.D., who joined the clinic in 1988, is a specialist in retinoblastoma, one of just two experts in Michigan. He works closely with families who face this frightening diagnosis, offering them support and knowledge of the latest and most effective treatments.

One of the biggest advances in treating this cancer is the combination of chemotherapy and lasers. "Neither is very reliable alone," says Dr. Archer. "But together they can target the tumor and minimize collateral damage to the retina surrounding it. This means we can treat certain large tumors in a delicate area without destroying vision."

"Dr. Archer has brought this specialty into the 21st century," says Dr. Del Monte. "He has provided state-of-the-art care and treatment that has salvaged the vision for many children who in earlier times would have lost an eye."

About a third of the clinic's patients are adults who have strabismus, a misalignment of the eyes that can result in poor vision, double vision, or loss of binocular vision. Some had surgery as children and have been told "nothing else can be done" or "another procedure will cause permanent double vision." "In fact," says Dr. Del Monte, "we are often able to realign their eyes and eliminate their double vision with surgery, prisms, or orthoptic exercises. These people are some of our most grateful patients."

Dr. Del Monte is proud of the clinic's many accomplishments: a top fellowship training program, cutting-edge care for infants and children with glaucoma, strabismus, and amblyopia, and complex procedures such as lens implantation for infants and children with cataract.

"This has been an amazing 20 years," he says, with thanks to the Skillman Foundation.

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**A BEAUTIFUL PATCH OF VISION**

One of Kellogg's most engaging patients will represent the Eye Center in a public relations program to be launched this fall by the University of Michigan Health System. Seven-year-old Kennedy Connolly and her mother will join other patients in describing how the right medical care at the right time made a difference in their lives.

Kennedy was just three years old when Erika M. Levin, M.D., discovered that her young patient's vision tested at 3/300: Kennedy had to stand three feet from an eye chart to see what others could see at a distance of 300 feet. Terry Connolly, who had not realized the extent of her daughter's vision loss, burst into tears. "She could hardly see the large E on the chart," she said.

Dr. Levin explains that Kennedy's eyes were not properly aligned, a condition known as strabismus. She also had an unequal refractive error, with one eye much more farsighted than the other. This caused Kennedy not to use her weaker eye, which resulted in a failure of its visual development.

For the next 2½ years, Kennedy wore glasses full-time and patched her stronger eye part-time, forcing her weaker eye back into action. Lisa Keating, orthoptist, worked closely with Kennedy to monitor her vision during this time. "It's not easy for children to keep the patch on, but Kennedy is very special, and she stayed with it."

Kennedy's perseverance paid off and now, with glasses, her vision is 20/25.

Kennedy, charming and vivacious in real life and before the camera, has already taken part in two photo sessions, one for print, the other for television ads. She wore a pink tutu, as she often did during appointments just before her ballet lessons. Did she mind wearing the patch again? asked a photographer. "No problem," said Kennedy who happily allowed the make-up artist to affix the patch that she no longer needs.
Complement H
AMD and the immune system

Vision scientists at the Kellogg Eye Center are among a handful of research groups that have made a critical discovery about the mechanisms that cause age-related macular degeneration (AMD). Sepideh Zareparsi, Ph.D., Research Investigator at the Kellogg Eye Center, working with other scientists in the laboratories of Drs. Anand Swaroop (at Kellogg) and Gonçalo Abecasis (in the UM School of Public Health) has shown that a single variant on chromosome 1 is linked to an increased risk – almost four times the risk – of macular degeneration and could be a primary cause in nearly half of all patients with AMD.

This is, according to Anand Swaroop, Ph.D., the Harold F. Falls Professor of Ophthalmology, “a finding that has taken us a giant leap forward in our journey towards early and meaningful treatment.” Dr. Swaroop is senior author on the paper, which was published in the July issue of the American Journal of Human Genetics.

The variant is a T to C substitution in exon 9 of complement factor H, a gene that is important in the immune system and helps regulate inflammatory responses. It is not the first time that the Swaroop group has shed light on the connection between AMD and the immune system. Three months before, they had published another paper that showed how a single amino acid change in a gene could double a person’s susceptibility to AMD. This gene, called the toll-like receptor 4 gene, also plays a pivotal role in fighting infection and, like complement factor H, suggests that an inflammatory event might trigger the onset of AMD. “Individuals who have the misfortune of being born with both these variants are almost eight times as likely to suffer from AMD as those whose genes do not contain the alteration,” says Dr. Swaroop.

Over the years the work of the Swaroop lab has been crucial in predicting as well as confirming the proper locations of suspected variants, thus allowing researchers around the world to focus their attention on the most promising areas. Once the genetic pathways are known, scientists will be able to develop tests that diagnose the disease early, before a person even notices symptoms, and treat the disease before vision is affected. Delaying the onset of symptomatic AMD or slowing the rate of progression will be an enormous benefit to the quality of life of people as they live into their 70s, 80s, and 90s.

Iacobucci Orthoptic Clinic
Sets the Standard

Within the Skillman Children’s Eye Care Clinic is a jewel that reflects the heart and soul of its founder, Ida L. Iacobucci, C.O. “Miss Ida,” as she is known, is an orthoptist of international reputation who has spent her life diagnosing and treating children and adults who suffer from strabismus.

Orthoptists work closely with ophthalmologists to treat patients who have problems with eye movement, amblyopia, and strabismus. Misalignment of the eyes (strabismus) not only reduces depth perception and binocular function, but often causes a child to become painfully self-conscious, a feeling that can persist into adulthood.

In the almost 50 years that she has been here, she has also established a coveted orthoptic training program for those who want to become orthoptists. Her reputation for energy, enthusiasm, and intelligence are evident in her landmark publications and many talks around the world, as well as in the privacy of the exam room where she sees her patients.

Miss Ida joined the Department in 1957 and has been involved in the training of each and every resident and pediatric ophthalmology fellow ever since. The effects of this training are visible throughout the U.S., as each of these ophthalmologists uses Miss Ida’s techniques with his or her own patients. “Miss Ida’s legacy can be felt from coast to coast in the office of every ophthalmologist and orthoptist who has watched her work,” says Monte Del Monte, M.D., Skillman Professor of Pediatric Ophthalmology.

In 1995, in order to formalize her commitment to excellence in orthoptics and assure that our program remains the one that sets the national standard, Miss Ida established the Ida Lucy Iacobucci Orthoptic Clinic. Her generosity and wisdom will always be felt in the clinic that bears her name.
In 1985, the year that the Kellogg Eye Center opened its doors, it cost just 22¢ to mail a letter. There were only 10,000 cell phones in the U.S. and AOL did not exist. A lot can happen in two decades.

And a lot did happen at Kellogg. Alan Sugar, M.D., Terry Bergstrom, M.D., and Andrew Vine, M.D. were on the faculty then and now, and, they say, the changes have been dramatic. “We have developed a vastly more efficient surgery system,” says Dr. Sugar. “In 1985 most surgeries were done on an in-patient basis. Now that we treat almost everyone on an out-patient basis, our patients are more comfortable, less inconvenienced, and taken care of more promptly.”

Corneal transplantation is a good example of the dramatic benefits that have accrued to patients since 1985. “Twenty years ago,” Dr. Sugar recalls, “patients were placed on a transplant waiting list. They were called when a donor cornea became available, usually many months later, and rushed into surgery. Now we can schedule surgery a week or two in advance.”

Dr. Vine notes that there have been significant advances in understanding and treating age-related macular degeneration. “Photodynamic therapy — which has helped many people — was unheard of back in 1985,” he observes. “Kellogg also helped establish I-125 plaque therapy as the standard of care for ocular melanoma, offering an improved survival rate for our patients.”

While the Eye Center now has over 60 clinical and research faculty, Dr. Bergstrom remembers that when the building opened in 1985 there were only 15. “The growth has been astounding. When you think about the research we do now it’s almost impossible to visualize the department with only two full-time vision scientists. And, when the building opened we had no low vision service, only a part-time pediatric ophthalmologist, and no faculty devoted full-time to general ophthalmology.”

Scott Wilkinson entered his residency soon after the building opened. Dr. Wilkinson is one of a small but growing number of alums for whom the UM ophthalmology residency program is a family affair. Our alumni group contains sons, daughters, brothers, and cousins of former trainees. It’s a meaningful history.

“My father finished his residency here in 1961. It was a different era, with only three faculty members. But the continuity is the quality — the idea that we are trained to be good to patients and disciplined in our studies. I never knew Bruce Fralick, but he trained Dr. Lichter as well as my Dad, and Dr. Lichter trained me. It is a wonderful legacy.”

—W. Scott Wilkinson, M.D.
residency class of 1989
Kellogg grows in step with the UM Health System

The Kellogg Eye Center, just a short walk from University Hospitals, is viewed as a natural extension of the Medical Campus. When the UMHS unveiled its master plan, the Wall Street area, where Kellogg is located, was identified as one of three sites for future expansion. The Eye Center expansion was the first facility to be approved by the UM Regents under the new master plan.

Jennifer S. Weizer, M.D., has joined the faculty of the Kellogg Eye Center as an Assistant Professor on the Glaucoma Service and at the Veterans Affairs Medical Center. Dr. Weizer earned her M.D. at Baylor after graduating from Columbia summa cum laude, while she simultaneously attended Juilliard for its program in violin performance. Dr. Weizer completed both her residency and her glaucoma fellowship at the Duke University Eye Center.

Dr. Weizer is board certified in Ophthalmology and has a special interest in the management of glaucoma.

Thelma K. Leveque, M.D., M.P.H., has joined the faculty of the Comprehensive Ophthalmology Service as an Assistant Professor. She will see patients at the Kellogg Eye Center in Brighton, Canton, and Livonia.

Thelma K. Leveque earned her M.D. degree at Duke University and completed her residency at the Kellogg Eye Center, where she was Co-Chief Resident.

If you have comments or would like more information, please contact the marketing staff at 734.647.5886
For patient appointments, please call: 734.763.8122
To learn how you can support the Kellogg Eye Center, please call: 734.615.0243
For information on alumni events, please call: 734.647.7392
Black and white photographs courtesy of the UM Bentley Historical Library

Miller, from page 1

My support comes from a personal connection to individuals, and then having the opportunity to learn about the needs of the Eye Center,” he says. “When I toured the research laboratories with Paul, I could see how crowd the facilities had become. It seemed that the time was right to contribute to the growth of the research program.

“Eyesight is such a critical part of our lives,” he says. “I’m pleased to be able to make research possible — and better.”

Reflecting his commitment to the State of Michigan, Mr. Miller did not waver when other suppliers were relocating in the south where labor costs were lower. Molmec would stay in Michigan because it was best for his customers and his employees. When the company was sold in 1997, it had grown to 1,000 employees and five manufacturing plants. Mr. Miller’s gift grew out of a series of visits to the Kellogg Eye Center. He considers it “a lucky coincidence” that he met Dr. Lichter just after he developed double vision. After his successful treatment, he accepted Dr. Lichter’s invitation to tour the Eye Center. “My support comes from a personal connection to individuals, and then having the opportunity to learn about the needs of the Eye Center,” he says. “When I toured the research laboratories with Paul, I could see how crowded the facilities had become. It seemed that the time was right to contribute to the growth of the research program.

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Mr. Miller was active in the industry and was a frequent speaker at technical conferences. He was on the board of the Detroit chapter of the Society of Plastics Engineers where he facilitated the development of educational courses in plastics. He also served on advisory committees at Eastern Michigan University and Ferris State University.

Mr. Miller earned his B.S.E. (materials) and M.S. (high polymers) from the UM College of Engineering in 1955. When he entered the University, he announced his intention to go into the emerging field of plastics. His advisors suggested that he start in chemical engineering and they would have “something” for him by the time he was a senior. As a result, Mr. Miller was awarded one of the first degrees in materials engineering from the University of Michigan.

Mr. Miller’s parents and sister are UM graduates. His father helped to set up the University’s Evans Scholarship for golf caddies. In the 1940s, his grandfather, Henry Carter Adams II, was instrumental in advancing the UM Naval Architecture program. Mr. Miller also recalls that his grandmother ran “a boarding house for ladies” attending the university, located near the current business school.

Born in Birmingham, Michigan, Mr. Miller currently resides in Orchard Lake Village, where he served as Mayor in 1988, and later, on the village planning commission. Mr. Miller was married for 40 years to the late Shirley Elkins Miller.


For allied health professionals

September 30, 2005
Visiting Professor Grand Rounds, Cornea
Michael W. Befin, M.D., Albany Medical College
October 7, 2005
11th Annual Fall Alumni Day
December 3, 2005
Kalamazoo Regional Update Conference
Gilmore Center, Bronson Methodist Hospital
December 10, 2005
Visiting Professor Grand Rounds, Retina
Glenn J. Jaffe, M.D., Duke University Eye Center
February 25, 2006
Mid-Winter Oculoplastic Symposium
Each year, approximately 8,000 Americans go blind from diabetic eye disease. That makes diabetes the leading cause of new cases of blindness among people between the ages of 20 and 74.

Early detection and treatment could reduce the development of severe vision loss or blindness by half. Thus, the lesson is: if you have diabetes, you must be vigilant about getting your vision checked and your retinas evaluated by an ophthalmologist. You could have early signs of damage that can be seen by a physician even before you notice any change in your vision.

What Is Diabetic Retinopathy?
The complex mechanisms of diabetes damage the blood vessels in the retina in two ways: 1) the disease can cause blood vessels to weaken and leak blood or fluid into the eye; 2) the disease can cause new abnormal blood vessels to grow. This growth of new vessels is called proliferative diabetic retinopathy. These new vessels are not only fragile and prone to leak but they are frequently in an area where blood vessels are not supposed to be located.

What Are the Symptoms?
Patients should be on the lookout for blurry vision, distorted vision, and floaters. However, it is important to remember that diabetic retinopathy can be present even without these symptoms and that treatment is more effective when carried out in the earliest stages of disease.

How Often Should You Have Your Eyes Examined?
• If you have just been diagnosed with diabetes you should have your eyes examined promptly.
• If you have diabetes you should have your eyes examined regularly.
• If you are pregnant and have diabetes it is important to be seen by an ophthalmologist during your first trimester because pregnancy can accelerate the progression of diabetic retinopathy.

How Can You Prevent Vision Loss?
The most effective way to avoid diabetic eye disease is to keep tight control of your blood sugar. Excellent control of high blood pressure and cholesterol is also important.

People with proliferative diabetic retinopathy can reduce their risk of blindness by 95 percent with timely treatment and appropriate follow-up care.