A BROADER VIEW

VSRC Increases Scope of Vision Research
Dear Alumni and Friends,

One of the primary missions of UAB and the School of Optometry is research. A hallmark of great universities is the discovery of new knowledge. One measure of the excellence of an institution in the development of new knowledge is the extramural research funding. The amount of funding for UAB was $384 million in 2003 and has grown to more than $460 million in 2004. This is a significant increase by any standard in such a short period of time. Not only does research serve to increase our knowledge, it is also of economic importance for the greater Birmingham metropolitan area and the State of Alabama.

The UAB School of Optometry, through its departments and centers, plays a significant role in this research mission. The total amount of active research funding held by faculty and staff as of January 2004 was more than $22,900,000. One of the primary responsibilities of faculty members in the Department of Physiological Optics is investigating the eye and visual system through vision research. Many of the faculty, as well as the Vision Science Research Center (VSRC), are housed in the Worrell Building (cover). The VSRC, which is directed by Dr. Kent Keyser, has 55 members from various departments across campus. The faculty members in the Department of Optometry are also involved in a significant amount of patient-based or clinically related research, either in the new Clinical Eye Research Facility on the fourth floor of the Peters Building, in laboratories, the Clinic, the community, or beyond.

The school recently constructed a new Center for the Development of Functional Imaging (CDFI) behind the Worrell Building. The CDFI houses an MRI that is used to investigate the functioning visual system of primates. This unique Center is one of three in the United States. It has the capability to undertake research that is immediately applicable to understanding the human brain.

Another important aspect of the School’s research endeavor is the Center for Biophysical Sciences and Engineering (CBSE). This center, directed by Dr. Larry Delucas, has as its focus crystallography and the technology that supports the growth and structural identification of these crystals (Winter issue 2002). Both the VSRC and the CBSE are University-Wide Interdisciplinary Research Centers. There are fifteen such centers on campus and two of these are affiliated with the School of Optometry.

The administration, faculty, and staff of the school understand the importance of research in the life of the University and School and work diligently to play an active role in the growth of the research enterprise.

As a final note, I want to inform you of Dr. Larry Mays’s retirement from UAB in December 2003. Dr. Mays enjoyed a remarkable teaching and research career at UAB and the School of Optometry. He served the school in a number of capacities—as director of the VSRC, director of the Graduate Program in Vision Science, director of the Center for the Development of Functional Imaging, and chairman of the Department of Physiological Optics. I know everyone wishes Dr. Mays the very best as he begins a new career at the University of North Carolina at Charlotte.

John F. Amos, O.D.
Dean, UAB School of Optometry

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On the cover: The Worrell Building, home to the Vision Science Research Center.
In this issue
Spring 2004 Vol. IX Issue 1

A Broader View 4
In the Vision Science Research Center, researchers from a wide range of disciplines come together for the common purpose of vision science research. In this issue, VSRC Director Kent T. Keyser, Ph.D., explains the history of the center and how that multidisciplinary approach has led to the center’s continued growth in both researchers and funding.

Changing of the Guard 6
Catherine S. Amos, O.D., looks back on her time as chair of Vision Service Plan.

Closing the Door on Glaucoma 7
Researcher Jimmy D. Bartlett, O.D., continues to lead the way in the UABSO’s fight against glaucoma, now with the help of Adam Shaikh, O.D., who is at UAB as part of a $70,000 fellowship from VSP.

Educating Patients 8
UAB faculty discuss the important role of optometrists in promoting A1c awareness.

Providing for Those In Need 9
Thanks to a long-standing program, the UABSO strives to bring quality eyecare to all.

Energizing the Fight Against Amblyopia 10
UABSO researchers are gaining information about various amblyopia treatments and are providing valuable services to the community at the same time.

About the School 12
Sightings of faculty, students, and friends of the school—from social gatherings to scholastic milestones.

Faculty Focus 15
Katie Clore, O.D., tells how she came to call the UABSO home.

From the President 16
News of note from Alumni Association President Lynn S. Hammonds, O.D.

Alumni Profile 17
Optometry is a family affair for UABSO graduate William H. Sullins, O.D.

The Campaign/Development 18
News of important renovation and service funding—along with a challenge to UABSO alumni.
In its 25-year history, the basic mission of the Vision Science Research Center has remained unchanged. That’s not to say it hasn’t evolved.

Created in 1979 as part of the UAB School of Optometry, the VSRC became one of a handful of University-Wide Interdisciplinary Research Centers (UWIRCs) in 1996. Since then, it has enjoyed nearly continuous growth in areas such as participation, funding, and—most recently—in visibility.

“Traditionally, the center’s primary mission has been to support the research efforts of the members,” says Kent Keyser, Ph.D., director of the VSRC since 1999. “From my view, one of the main measures of our success is how well we are supporting that research, both basic and clinical.”

Any discussion of funding for the VSRC begins with the National Eye Institute (NEI). Soon after the center’s creation, the NEI awarded the VSRC $273,000 through one of its coveted Core Grants. That grant has been continuously funded ever since, and today the total amount of funding received from the NEI approaches $5.2 million per year.

“That’s a dramatic success, and if you look at the history of the center, you’ll see that that amount has gone up steeply in the last few years,” says Keyser. “That’s not me, that’s the researchers and the work they’re doing here that merits that kind of funding.”

Here, There, Everywhere

Originally, the VSRC was housed in the Henry B. Peters Building. Moving to the Worrell Building in the mid 1980s gave the center more visibility as well as more research space. When the center’s status was changed to a UWIRC in 1996, the potential impact of the center increased dramatically, as did the center’s visibility within the university.

“I saw it as a challenge to have the center grow and to take more center stage at the university,” says Paul Gamlin, Ph.D., director of the center from 1995 to 1999. “After that, I enjoyed being able to help all the vision scientists on campus by providing core vision-related resources and helping recruitment efforts for people interested in vision research.”

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“The UWIRC status of the VSRC has certainly helped establish the center as an important research entity on the UAB campus,” says John F. Amos, O.D., dean of the UAB School of Optometry. “Beyond that, it has been of enormous value in providing assistance to both clinical and basic vision researchers who are members of the center and represent the many disciplines involved in vision research across campus and beyond.”

Another by-product of the university-wide status was that vision research was not confined to just the Worrell Building or the Peters Building. These days, VSRC members can be found performing any number of research efforts in Volker Hall; at the Callahan Eye Hospital; the Peters Building, including the UABSO teaching clinic; in the Cancer Center; the Arthritis Center; the Cell Adhesion and Matrix Center; and the Center for Biophysical Sciences and Engineering, which also holds UWIRC status. So when Keyser refers to research going on “here,” the “here” he refers to is not limited to the Worrell Building. "I think that can be seen as another measure of our success," Keyser says. "We have members scattered literally all across campus because the work involves so many different disciplines."
The VSRC currently includes more than 55 appointed faculty members representing 16 departments and seven schools within the university. Its Core Grant from the NEI is one of the longest-running Core Grants at UAB, and its recently completed $3.7-million functional MRI facility is one of only three such facilities in the nation.

Additionally, there are several modules members have access to in the course of their research, including a machine shop and histology laboratory. “Having a university-wide research center allows for collaboration on several levels,” says VSRC member and UAB Department of Ophthalmology Chair Lanning Kline, M.D. “Researchers from different backgrounds and different schools who share a related interest can come together. That interdisciplinary aspect allows vision researchers from several areas to lend their individual expertise to common problems.”

Reaching Out, Up

As pervasive as the VSRC’s presence on the UAB campus has been over the years, the center remained unknown to much of the community at large prior to the implementation of the center’s Education and Outreach Program. The program, directed by Mary Jean Sanspree, Ph.D., provides a vital link between the center and the surrounding population.

“Even though we receive millions of dollars per year for vision research, the majority of our research is at a level that doesn’t allow for a significant amount of direct connection with the community,” says Sanspree. “When you’re doing vision research at the cellular level, you may be 10 years away from seeing your work result in any practical application that might benefit someone in the area.”

Without that kind of tangible connection, Sanspree says the VSRC was missing out on a link that exists more naturally in other campus centers, such as the Cancer Center, where faculty have a direct and immediate connection to the community. Her first effort toward establishing that connection was to bring a traveling vision exhibit from the NEI to Birmingham’s McWane Center in 1998. Other outreach efforts include the sponsoring of annual art contests for visually impaired students.

“We did some things originally to get exposure for the center, but we also wanted to do things that would provide opportunities for people with vision loss,” says Sanspree. To that end, VSRC staff teamed up with the Birmingham Museum of Art to organize tours of the museum for the visually impaired. The two groups also teamed up to make one of Birmingham’s most visible landmarks accessible to people with low vision, allowing visually impaired children to feel pieces of the statue of Vulcan when it was dismantled recently for restoration.

Universal Benefit

Of all the outreach efforts that have been developed over the past five years, few have had the potential for direct impact on the community like the Rural Alabama Diabetes and Glaucoma Initiative (RADGI). Through that program, VSRC researchers, optometrists, and Lions Club volunteers have organized an effort that brings eye care to some of the most underserved areas in the state. Using high-tech mobile screening labs, researchers are able to study the diseases in depth while providing a much-needed service to local populations.

“Our goal for the VSRC is to extend the center’s activity into projects that would have a more immediate impact for the citizens of Alabama,” Keyser says. “This particular effort is a perfect match between the state’s needs and UAB’s resources.”

Like much of the research at the center, the results of RADGI studies could have global consequences. The screenings are being performed in some of the poorest sections of the state—places that in many ways are like microcosms of third-world nations where the same problems occur in much larger numbers.

“I am especially excited about the efforts of the VSRC Education and Outreach module,” says Amos. “It has developed a model that provides vision and health assessments in the Rural Alabama Diabetes and Glaucoma Initiative. This program provides screenings in areas of the state that either do not have care available locally or barriers exist that create disparities in health-care delivery. Recently, this project has joined with the other health schools on campus and other entities to form the Alabama Underserved Health Partnership. The AUHP model holds great promise for rural communities across the Deep South and the nation.”

The potential for such wide-ranging benefits has brought attention to the VSRC, and, more importantly, has brought support from a variety of sources.

“We have secured substantial funding for that project through the Lions Club International Foundation, the Central Alabama Community Foundation, the Eyegisht Foundation, and Vision Service Plan, and in the 2003 Federal Budget we had a direct appropriation for the program thanks largely to the work of Congressman Spencer Bachus,” Keyser says. “That he has put so much effort into this project where the beneficiaries live, for the most part, outside his district says that he understands that the potential advances in vision science stand to benefit us all, not just one demographic or geographic area.”

And that, Keyser says, strikes at the heart of all vision science research, since improved vision can so often be a key to improving life. And improving eye care, Sanspree says, can so often be a key step toward improving overall health.
Before Catherine S. Amos, O.D., agreed to accept the position of chair of the board of Vision Service Plan (VSP), the country’s largest provider of eye-care benefits, she held a vote.

“My kids all sat around the kitchen table and voted,” Amos recalls. “I wanted to make sure they approved if I wasn’t always going to be around for some things in their lives.”

Amos’s daughter Whitney, 17, and son Morgan, 22, agreed their mom should take the prestigious position. She did, serving as chair of the VSP for the past two years. Amos, 54, will step down in March and serve another two years as immediate past chair, making her tenure on the board a total of 12 years.

And while she may have struggled at times to balance her duties as chair with her work running a private optometry practice in Birmingham and her role as a mother, she says she doesn’t regret it.

“It’s been quite a ride,” she admits. “I thought I knew something about business and accounting until I helped run a $1.9-billion company. It’s quite different.”

Amos was appointed to the VSP Board of Directors after she served as a state representative to the board for one year. She was re-elected to serve one-year terms until she became vice chair and finally chair. “What started out as a two-week-a-year commitment then turned into something much larger,” she recalls.

VSP is a Sacramento, California-based company that provides prepaid eye-care benefit plans to employers nationwide. Amos’s role as chair has been to help set company policy. “We decide who can be a VSP provider, what are the rules and regulations for panel memberships, what types of plans we’ll sell, and more,” she says. “We also decide what constitutes a comprehensive eye exam, and audit all our doctors.”

Among Amos’s goals for her term as chair were promoting the private practice of optometry and communicating clearly and regularly with VSP doctors. “The doctors sometimes see us as the not-so-friendly corporate person out there and think we’re competing with them for their private patients,” she says. “We have to balance all of that. It’s been tremendous to watch this thing grow over the last 12 years.”

One of the major changes Amos helped implement in that time is the use of computers to file medical claims online. More than 90 percent of VSP’s claims are filed online today. The board offered the doctors incentives to make the change from paperwork to paper-free, paying them a bonus of $2 per claim filed online. Today, they have to pay a fee if they file on paper. “It took a huge effort to get that accomplished, to train our doctors and staff and have them embrace that change,” she says. “The program helped bring a lot of people into the computer age.”

It also gave Amos an idea of the vast number of doctors under VSP’s services, she says, and demonstrated how the decisions her board makes affect their daily lives. “You have to look after the people who practice, from huge offices to a sole practitioner in rural Arizona or Wisconsin. It’s kind of daunting to think you’re impacting that many doctors with the decisions you make.”

Another project Amos helped implement as chair was establishment of a $70,000 grant for a one-year fellowship for glaucoma research at the UAB School of Optometry. Optometry is not a field that has traditionally supported fellowships for continuing education in the field, she says.

“Glaucoma is a disease that many optometrists are the first to diagnose in their patients,” she says. “We thought if we could somehow impact how people are being educated about glaucoma, that could help VSP in the long run by gaining a better understanding of the disease.”

Ten years ago VSP awarded its first managed-care contract covering the medical surgeries sometimes required on the eye, and not just contact lenses or routine eye exams. Since then, VSP has tried to promote optometrists’ education about these diseases, both for health and business reasons.

“If a patient with glaucoma can be treated by the optometrist rather than being referred to a specialist every time, that reduces costs,” she says. “We thought it’d be wise to invest dollars in helping doctors learn more about it.”

Amos says that while she has enjoyed her time as chair, she’s unsure whether she will serve in such a demanding post in the future. She stays very busy running her practice, Eye-care Associates, Inc. in Hoover, with her partner Lynn S. Hammers, O.D.

When she isn’t working or flying to California for VSP meetings, Amos also serves on the board of the Amelia Center in Birmingham, which offers counseling services for grieving children and families. Her concern for children stems in part from her optometry work—more than 40 percent of her patients are under 18 years of age. “I started my own practice three years after graduating and have always liked the aspect of helping patients, and providing a good service to families,” she says. “It has been a very rewarding career.”
They may not know it, but approximately 2.5 million Americans have primary open-angle glaucoma, the most common type of glaucoma—a disease that if left untreated or uncontrolled can lead to blindness. This fact doesn’t escape Jimmy Bartlett, O.D., a professor in the UAB School of Optometry who also teaches in the Department of Pharmacology and Toxicology at the University of Alabama School of Medicine.

In his 27 years as a professor at UAB, Bartlett has become a leader in the field of optometry, recognized in particular for his research on glaucoma and treatments for the disease. He has written several widely used textbooks on clinical ocular pharmacology and ophthalmic drug facts.

“He wrote the textbook on ocular pharmacology,” says Adam Shaikh, O.D., who is working with Bartlett as part of a $70,000 fellowship he received from Vision Service Plan. Shaikh is a Birmingham native who obtained his bachelor’s, master’s, and doctoral degrees at UAB. He was practicing general optometry in Nashville, Tennessee, when a friend told him about the grant. “It is one of the very few fellowships in optometry, and is heavily oriented toward clinical research,” says Bartlett, who wrote the original proposal that established the fellowship four years ago.

Shaikh started the fellowship in October 2002 and has extended it to last another year, through October 2004.

Together, Bartlett and Shaikh are working on three glaucoma studies. The first involves ocular blood flow—examining to what degree blood flow may have an influence on glaucoma damage.

“Patients who have diabetes, heart, and other circulatory problems seem to be at increased risk for damage from glaucoma,” says Bartlett. Using a device called the blood-flow analyzer—the only such machine in Birmingham, Bartlett says—they measure the circulation of blood to the human eye. “We’re attempting to sort out how much reduced blood flow it takes to substantially increase the risk of damage,” he says.

Shaikh has also collaborated with Bartlett on several tests of ophthalmic drugs—commonly used by glaucoma patients. One such drug called Alphagan uses neuroprotection rather than decreasing pressure in the eye to reduce glaucoma symptoms. This means it helps protect the neurons and cells that deliver visual signals in the brain. Shaikh and Bartlett compared this new drug against one of the most commonly used ophthalmic drugs, Timolol, to see which works better to protect the cells from dying. Alphagan won out.

A third study involves researching a possible correlation between central corneal thickness and eye color. “We have learned that patients who have thick corneas tend to have higher-than-normal eye pressure,” says Bartlett. “We may eventually be able to look at an eye’s color without measuring the corneal thickness and determine whether the eye pressure is too high or too low.”

After completing his fellowship, Shaikh says he hopes to extend the information he has gleaned from research into the field. “I want to be involved in a practice that has a heavy glaucoma population and to go into the clinic and start treating patients again,” he says.
The blood glucose test is a fixture in the lives of Type 2 diabetics. Whether they check their levels twice a day or even four or five times, the blood test tells diabetics when to be most careful about the foods they eat—after all, most diabetics know the dangerous consequences of too-high or too-low blood-sugar levels.

But fewer patients know the risks of long-term elevated blood sugar, or the importance of testing their long-term levels, says UABSO Assistant Professor of Optometry Tammy Than, O.D. A standard blood glucose test taken in the doctor’s office will tell whether the patient has had too much sugar in the last few hours, but it won’t tell what their sugar levels were like two weeks or two months ago, or on average over the last few months. And those long-term levels can indicate risks of complications that the standard blood glucose test might miss.

Long-term blood levels are taken with the hemoglobin A1c test. The A1c test is usually done in an internal-medicine physician’s or endocrinologist’s office, usually once every three to six months. Unfortunately, patients too often fail to keep track of their results, Than says: “Most of the time they don’t know what it is; they don’t even know what it means.”

Confronting Complications

Dennis J. Pillion, Ph.D., a UAB professor of pharmacology and toxicology who has studied diabetes for 20 years, says patient awareness of A1c levels is crucial for preventing complications from high blood-sugar levels. Such complications include renal disease, cardiovascular disease, neural damage, and vision loss. Patients who know their A1c levels are more likely to follow treatment plans and avoid complications. “Usually the patient’s internal medicine physician or endocrinologist becomes aware of an elevated hemoglobin A1c count before the optometrist,” Pillion says, “and they will try to take steps to improve the patient’s diabetes control. But the optometrist, as part of the health-care team, can reinforce the issue with the patient. Hearing it from another, independent professional often adds credibility to the message.”

Than says that for the optometrist, the most immediate impact of elevated A1c levels is on the eyeglass prescription. “Patients get significant changes in their prescriptions if their blood sugar is out of control,” she says. “We’re most likely not going to prescribe glasses at that point.” Knowing a patient’s A1c levels allows the optometrist to decide whether to wait until the average blood sugar levels come down enough to allow a correct prescription.

But when A1c levels are tested in the physician’s office, the optometrist cannot easily get the results unless the patient knows to bring them in. An optometrist can ask the physician for the test results, but that requires a release from the patient and takes time. “That’s not something we can get while the patient’s still in the chair,” Than says.

Testing the ABCs

Than says optometrists instead should encourage diabetic patients to keep track of their most recent A1c levels, using any of a number of tools that are available. “There is a brochure that we give out that teaches patients to learn their ABCs: ‘A’ stands for A1c; ‘B’ is blood pressure; and ‘C’ is cholesterol. The flyer has a cutout that they can put in a wallet and write down the levels every time they go to the doctor. It’s on the Web at www.diabetes.org/makethelink. I try to teach all my doctors about it. If we give that out to our patients, it gets them more engaged with their physicians to actually know their A1c levels.”

Recently, inexpensive home testing kits have been made available, such as the A1cNow diabetes management kit, allowing patients—or their optometrists—to directly measure A1c levels. While Than emphasizes that a home kit cannot take the place of the physician’s test, it offers fast, reliable results that...
can be used in the optometrist's office to determine whether average blood-sugar levels are low enough to allow a correct prescription.

Pillion adds that educating patients to the importance of their A1c levels not only offers warning signs to pay stricter attention to their diabetic care; it can also be useful as a counseling tool.

"Patients can be very alarmed or disconcerted sometimes because their blood sugar can go up and down during the day, affected by what they eat, stress, exercise, and other factors," Pillion says. "The hemoglobin A1c test gives the average so you have a clearer picture of how you've been doing."

And a patient who has been making stronger efforts to control blood sugar will find the results encouraging, making long-term control more likely.

"If there's been an improvement in their care, it will generally be reflected in a lower A1c value," Pillion says. "That can be a very positive thing for the patient to see."

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**Providing for Those in Need**

**Sliding Scale Makes Eye Care Available for All**

For many people, poor vision impacts every facet of their life, and the benefit of corrective glasses can be felt in every waking hour—from facilitating daily chores to preventing eyestrain and further vision damage. But even the simple correction of glasses is beyond the reach of many people; when you're struggling to put food on your family's table, prescription glasses can seem extravagant.

Rather than see many patients go on with uncorrected vision, the UABSO offers a sliding-scale payment option called the Patient Assistance Program (PAP) for those with limited means. Willie White, administrative director of clinics at the UABSO, says the program serves two purposes: It is a way to contribute to the community, especially by helping patients on Medicaid or Medicare whose options are very limited, and it helps maintain a steady patient base for UABSO interns.

Patients apply for assistance when they visit. At checkout a candidate receives an application package, which must be filled out and returned before the patient comes back to pick up the glasses. The application requires a candidate to show proof of income and household expenses, and candidates must fall below the poverty line by Alabama state guidelines to qualify.

If the patient qualifies, the school writes off some or all of the eye exam, and then bills the leftover cost of the glasses to a supporting grant. Coverage is either 25, 50, 75, or 100 percent, depending on the patient's financial status. The program covers a complete set of glasses, offering a variety of durable frames for men, women, and children; the glasses cost $91.80 at full price, or $135 for bifocals. Low-vision devices such as magnifiers are covered. Contact lenses are not, except for keratoconic patients who require corrective contacts. The PAP funding is provided by the university, the Eye-Sight Foundation, SightSavers of Alabama, and Sirote & Permutt, P.C.

White says there were about 130 PAP patients last year, most either elderly or from the pediatric clinic; in both cases, these are patients for whom eye care is especially critical.
The sooner, the better" is an axiom that Professor of Optometry Robert P. Rutstein, O.D., and Associate Professor Katherine N. Weise, O.D., know all too well. These two researchers are investigating the various treatment options for amblyopia, the childhood-onset disorder commonly known as "lazy eye." If not treated successfully within the proper time frame, children with amblyopia will suffer a permanent reduction in vision in their weaker eye.

This crucial role of treatment has inspired Rutstein and Weise, in collaboration with fellow UAB School of Optometry faculty members Wendy Marsh-Tootle, O.D., Kristine B. Hopkins, O.D., and Marcella G. Frazier, O.D., and clinical coordinator Catherine Baldwin, to pursue an exhaustive series of amblyopia treatment studies, with some surprising results.

Amblyopia is characterized by reduced vision in one eye that has not received adequate use during development. Although the condition may result from many factors, the most common causes are strabismus (crossed eyes) and anisometropia (a significant difference in the refractive errors of the two eyes). "These two mechanisms are not mutually exclusive," Rutstein notes, and he underscores the need for early diagnosis and intervention. "Although this is a very rewarding area of study, it can also be frustrating. If the treatment is not successful, the patient will have a lifetime of poor vision."

A desire to avoid this scenario has led Rutstein and Weise to become involved in a series of national, multicenter amblyopia studies that combine the efforts of optometrists and ophthalmologists. These studies, collectively known as the Amblyopia Treatment Studies (ATS), have illuminated many of the gray areas of treating this disorder. "Basically, optometrists and ophthalmologists want answers to four questions related to amblyopia," notes Rutstein. "What is the most effective treatment? How much treatment is sufficient? What is the rate of recidivism? And finally, can older children and adolescents benefit from current treatments?"

The first study, ATS 1, has been completed. It compared the effects of two common treatments, an eye patch and topical application of atropine, in 400 children with moderate amblyopia under the age of seven. Although atropine has been available for many decades, the placement of an eye patch over the stronger eye has been the "gold standard" for amblyopia treatment. What the researchers found, however, was that daily atropine use was just as effective as patching in this patient population, thus providing clinicians with a proven option for many of their young patients.

These results led the investigators to a new round of questions. "ATS 1 revealed that atropine was as effective as patching. We then asked how much patching time is necessary in these patients," Rutstein says. The study ATS 2 addressed the issue of duration of patching for children under the age of seven with either moderate (20/40 to 20/80 vision in the weaker eye) or severe (20/100 to 20/400 vision in the weaker eye) amblyopia. Once again, the answer surprised the investigators. The results of this trial, published last year in Archives of Ophthalmology, showed that two hours of patching per day was as effective as six hours per day for patients with moderate amblyopia, as measured by improvement in vision after four months.

The children enrolled in the study also received one hour per day of physical eye stimulus (e.g., drawing or tracing), an added feature not included in ATS 1. "These results surprised me, and that's good, because it means that the physicians can prescribe less treatment and still be effective," Rutstein notes.

For patients with severe amblyopia, the ongoing study is comparing six hours of patching per day with 24 hours of patching. Similarly, the study seeks to determine the effective amount of atropine for children with moderate amblyopia by comparing daily application against application twice a week. Data analysis from these study arms is forthcoming.

ATS 3 is perhaps the most urgent of all the amblyopia studies, as it will inform investigators of the success of various treatments in older children and adolescents. The study employs a battery of techniques, including patching, atropine, and vision therapy in patients from ages seven to 19. "For children above the age of seven, it is not clear how much plasticity remains in terms of vision development," notes Dr. Weise. "We would like to be able to set some boundaries and find out what works in these patients. The investigators refer to the simultaneous application of all effective treatments as the "kitchen sink" method, in reference to their efforts to combat the disease using everything but the kitchen sink. "Due to the com-
promised time window in these patients, we do not have the luxury of trying just one approach or comparing two approaches. We really have to try all known treatments to guarantee the most success,” Weise observes.

Now an ongoing multicenter study, ATS 3 began as a pilot study with one 13-year-old patient. “It really was an awesome story,” recalls Weise. “This teenager, whose ability to play competitive tennis was compromised by amblyopia, responded to treatment with an improvement in his vision from 20/200 to 20/40.” This auspicious finding led the researchers to scale up the study to see if established paradigms could be shifted. “There is a dogma that children above the age of 10 are beyond the period for successful treatment for amblyopia,” Rutstein says. “Although the condition is certainly more easily prevented if detected and treated early, we believe that some success is possible for some older children.”

ATS 3 also addresses issues of recidivism in patients with amblyopia, as a small percentage of children who are treated successfully later regress. “We have a sense of the recidivism rate, but we lack the specific data,” says Weise. ATS 3 will provide definitive numbers by following patients a year after they reach their vision plateau. “There are ways to discourage recidivism, such as using vision therapy, and we want to investigate the possibilities.”

The researchers hope that the results of the ATS studies will both motivate and educate optometrists and ophthalmologists about treatments for amblyopia. “These studies are exciting, not only for the information they provide, but also because the results have the potential to change clinical practice,” notes Weise. The ATS studies have received much publicity, which Rutstein also hopes will translate into improved screening programs in schools. “Approximately 2-4 percent of children suffer from amblyopia. There are no patterns in the prevalence of the condition with respect to race, gender, or socioeconomic factors,” he says. As such, school-based screening to evaluate alignment and refractions between the eyes serves as a powerful method for directing amblyopic children to the clinic.

However, the researchers stress that timing is paramount, and early diagnosis and intervention remains a key factor in determining the success of the various therapies. “We see many children with amblyopia for the first time at ages five through seven, and it would be preferable if we could see them when they are two or three years old,” Rutstein notes. Weise observes, “When diagnosed and treated early, approximately 80 percent of children have their vision improved. Essentially, early detection can save these kids from having permanently compromised vision in one eye.”

As they continue to gather data from the ATS studies, these UAB researchers remain committed to understanding and promoting the spectrum of amblyopia treatments. As a result of their efforts, clinicians may comfortably offer additional treatment options, and young patients with amblyopia can increase their chances of a lifetime of healthy vision.

**School of Optometry researchers Wendy Marsh-Tootle, O.D., and Marcela Frazier, O.D., are currently recruiting patients for phase 5 of amblyopia treatment studies. This phase will be focused on children ages three through seven and will evaluate the benefits of patching versus no patching.**

For more information, contact Study Coordinator Cathy Baldwin at 934-2933 or cbaldwin@icare.opt.uab.edu.

This mother of four holds her youngest son after he participated in one of the UABSO’s amblyopia treatment studies. He was identified by the UABSO screening program at his school.

**SAVE THIS DATE!**

November 13, 2004

Dedication of the new ground-floor teaching clinic.

Invitation to follow.
ALOA Board Meeting, Alumni Breakfast

The 2003 ALOA Annual Convention was held in November at the Wynfrey Hotel in Birmingham. As usual, it was three days packed with meetings, CE, and fellowship.

The AOSA sponsored the Optometry Winter Classic Golf Tournament on Friday morning at the Robert Trent Jones Oxmoor Valley Course. AOSA President Jennifer Owen reports that the overall winners were Michael Hooks, O.D. ('83) and second year student Alan Pradillo. Proceeds fund AOSA events and projects throughout the year.

The UABSO Alumni Association held its annual breakfast meeting on Sunday, November 23. The guest speaker, UAB Blazer Basketball Coach Mike Anderson, entertained the group with stories about his journey to the head coaching position, and his predictions for the future of UAB basketball.

Michael Carboni, O.D., UABSO Alumni Association president, announced the Alumni of the Year and Coshatt Scholarship winners. Dewey A. Handy, O.D., of Jackson, Mississippi, was named the 2003 Alumnus of the Year. Handy is a 1979 graduate who is active in his profession and his community, particularly in the mentoring of upcoming optometrists. Kimberly Ocampo, a second-year student, was awarded the Coshatt Scholarship, which is given each year to a student who demonstrates excellence manifested by academic diligence and a desire to succeed. In addition to her studies, Kim is Trustee-Elect for the AOSA, is a member of SOSH, and serves on the yearbook committee.

Following the awards, Carboni called for election of officers for 2003-2004. The elected slate is as follows: Lynn Hammonds ('91), president; Ben King ('83), president-elect; Michael Parker ('80), secretary-treasurer; Michael Carboni ('79), immediate past president; and members-at-large Gerald Simon ('85), Allen Dunn ('83), Hamp Moore ('86), Melissa Hoercher ('95), Kim Dunagan ('96), Jill Helton ('98), and Bruce Perry ('79).

Second-year UABSO student Kim Ocampo was named the 2003 Coshatt Scholar.

About the School
News from In, Around, and Beyond UAB
**UABSO Vendor Appreciation Reception**

The holidays are a perfect time to show appreciation to those who support the work and projects of the UAB School of Optometry. The annual Vendor Appreciation Reception is one of the ways we acknowledge these vendors and donors. The Birmingham Athletic Club, in the penthouse of The Bank in downtown Birmingham, was a perfect venue. Guests were not only treated to a view of the city, but also a view of the School of Optometry and its many interesting projects.

**SECO Day at UABSO**

An annual event at UABSO, SECO Day is an opportunity for SECO officials to inform students of the benefits of attending SECO in February, while offering cash inducements to the students, to help defray the cost of attending the conference. Richard Phillips, O.D., president-elect of SECO International, hosted a luncheon for the students in December. Dr. Phillips raffled scholarships in $50 and $100 increments, and also gave away three $500 scholarships. The lucky $500 winners were Ben Kachelman, second year, Stephen Downey, first year, and Andrew Solomon, first year.

**Homecoming**

This year, the UABSO got into the Blazer spirit of Homecoming. With the help of some very artistic students and dedicated staff, the School of Optometry entered the decorations contest and won third place. A staff committee to coordinate the students’ efforts was comprised of Lisa Entrekin and Keely Stewart of Student Affairs, and Virginia Rogers of Alumni Affairs. The UABSO Gurney Derby team entry did not fare as well, but put forth a valiant effort.
Dr. Mays Retiring

Lawrence E. Mays, Ph.D., retired in December after 25 years with the UAB School of Optometry. Mays came to UAB in 1978 from Temple University. At UAB, Mays filled numerous roles, including Director of the Vision Science Research Center, chairman of the Department of Physiological Optics and director of the Center for the Development of Functional Imaging. Since retiring, he joined his wife, Joan Lorden, Ph.D., in Charlotte, North Carolina, where she is the Provost and Vice Chancellor for Academic Affairs at the University of North Carolina, Charlotte. His retirement has been short-lived, since he is now a professor in the Computer Science Department at UNCC.

Candice Turner Wins Residency Award

Candice Turner, ’03, is the winner of the 2003 Dr. George Mertz Contact Lens Residency Award, awarded by the American Optometric Foundation and sponsored by Vistakon. Dr. Turner is a Contact Lens Resident here at the UABSO. The award was presented in December at the American Optometric Foundation’s Research Luncheon during the Academy’s annual meeting in Dallas.

Amos Named ALOA Optometrist of the Year, SECO Optometrist of the South

John F. Amos, O.D., continues to collect awards and commendations. His most recent honors are the ALOA 2003 Optometrist of the Year and the SECO 2004 Optometrist of the South. In the nomination document for the SECO Award, it was noted that “as an educator, Dr. Amos has influenced an entire generation of Southern optometrists.”

The University of Alabama at Birmingham School of Optometry cordially invites you to the

Doctoral Convocation and Hooding Ceremony

Friday afternoon, the 21st of May 2004
Two o’clock

Alys Robinson Stephens Performing Arts Center
1200 Tenth Avenue South
RSVP (205) 934-6150
Faculty Focus

Katie Clore, O.D.
Following Through on a Practical Choice

Though she had no idea at the time, Assistant Professor of Optometry Katherine A. Clore, O.D., began her study of optometry all the way back in high school.

“I had to write a senior paper on a profession,” says Clore. “I chose optometry because I had been going to an optometrist since I was a young child, and so I wrote the paper, not thinking that much about it at the time.”

After attending Mary Baldwin College in Virginia, where she majored in biology, Clore came south to attend UAB and follow through on the decision she had so casually made. After graduating in 1982, she worked in private practice for the next two and a half years. But soon she found herself back at UAB on the opposite side of the desk. “At the time, I was teaching one day a week here at the school in the clinics, and I enjoyed it so much,” Clore says. “They offered me a job, and I thought I’d give that a whirl.”

Today, Clore teaches in the contact lens clinics, the clinical-management course, and is course master for a new course that began this spring called “Introduction to Clinic.” She is also a member of the University Optometric Group, where she practices one day a week.

“It’s great because it keeps my skills up to par,” Clore says of practicing what she teaches. “It also helps me continue to relate to patients, and I hope I can convey some of that knowledge to the students that I teach.”

Clore also served as president of the Alabama Optometric Association while that organization successfully aided the passage of the optometric therapeutic drug law (which allows optometrists to administer drugs to treat everything from red eye to glaucoma). Recently, she has also worked as principal and co-investigator for funded clinical research studies involving various aspects of how corrected or uncorrected refractive error may actually affect a worker’s productivity when using a computer. “We know now that so much of our workforce is on the computer,” Clore says. “What if they don’t see well at that distance? How does that impact how much they can produce at the end of the day?”

With her husband, a nine-year-old daughter, and a passion for golf and mystery novels, Clore says she keeps her schedule full and is optimistic about future optometric plans. “I enjoy teaching, and that’s keeping me so busy right now I’m not exactly sure what’s next.”

Renovations at the Henry Peters Building made great strides over the winter months, with both the interior and exterior getting major face-lifts. Work is expected to be completed by mid-summer with a dedication ceremony scheduled for November 13, 2004.
Greetings to you from the Alumni Board of Directors and staff. As I write this brief note I’m reminded of how quickly time passes. It has been almost 13 years since my class graduated from the School of Optometry. The educational foundation we received there has afforded most of us a very fulfilling and comfortable life. In just a short time many of my classmates have achieved great professional success, and most have experienced the ultimate joy of the birth of a child or the marriage to a soul mate. There have also been times of great sadness, as some of us have had to face the death of a child, parent, or sibling.

As I enter midlife I find myself thinking more and more about the purpose for being, what this journey is all about. The idea of “what’s in it for me” is fading, and I now find myself looking for opportunities to make a difference in someone else’s journey. I’m often reminded by my patients of how quickly life can turn on a dime. I’m also surprised by how many opportunities there are to give back.

Being a member of the UABSO Alumni Association is more than just staying connected to a great school. It’s an opportunity to collectively give back. In the past the Alumni Board has looked for ways to make a difference in the lives of optometry students and residents. Recently we voted to make a major contribution to the clinic renovations by funding two rooms—the Eydie Jones Student Room and a pediatric examination room. In addition to this, many of our alumni have contributed to the renovation project individually. For this, you are to be commended.

As you continue to support your profession I hope that you will make being a part of the UABSO Alumni Association one of your priorities. I would remind you of the quote from Henri Frederic Amiel, a Swiss philosopher who said, “Life is short, and we have never too much time for gladdening the hearts of those who are traveling the dark journey with us. Oh, be swift to love, make haste to be kind.” The Alumni Board is committed to providing opportunities for you to stay connected to the school and your classmates. And in this collective assembly we all have chances to gladden the hearts of others through fellowship and service.

Lynn Hammonds, O.D.
President, UABSO Alumni Association
Bill Sullins, O.D.
Continuing a Family Tradition

For William H. Sullins, O.D., 1976 alumnus and current practitioner in the Winton, Sullins and Lee branch of Eye Care Associates, optometry is a family affair.

"My family has a real long history of optometrists," says Sullins, who, after graduating with a degree in accounting from Auburn University, came to UAB to study optometry on the encouragement of his uncle and cousin.

After graduating in only the fourth optometry class at UAB, Sullins moved back to his hometown of Huntsville to begin practicing. He has been in the same office and at the same location ever since.

"It has been an excellent profession for me," he says. "I think just the general helping of people who are having problems is probably the most fun part of it."

In the 27 years he has been practicing, Sullins has seen many changes in the profession. The advent of new materials for contacts and glasses, new diagnostic tests, and a broader scope of practice has made for an interesting career.

"I guess the biggest change has been the new technologies and scope of practice," he says. "The automatic refractors, visual field analyzers, and pachymeters—all those things that help us do our job a little bit better and ultimately help our patients."

Aside from practicing optometry, Sullins has also been integrally involved at the state level with its regulation. Currently, he is the president of the State Board of Optometry, a seven-person board that oversees the licensure for the state and overhears consumer complaints.

"I guess you could call us the police force," Sullins says. "[The Board] really is there to protect the citizens of the state, not to protect the licensees. We're the authority that makes sure that you don't have optometrists practicing beyond the scope of the statute."

When he's not working at his private practice or leading the State Board, Sullins says he enjoys golf and hunting and fishing. But his proximity to the profession is never far away and his association with UAB is not limited strictly to professional ties; his daughter is currently a first-year student in the optometry school, continuing the family tradition.
A Lasting Legacy
Several Naming Opportunities Remain for Clinic Donors

The school has continued to receive funding for the renovation from our alumni, vendors, and friends. The following is a list of the donors who have pledged a room since the last publication of Focal Point.

Contact Lens
Donald A. Springer, O.D.
The Donald A. Springer, O.D., Sub Waiting Area

Low Vision/Ocular Disease
Allergan Pharmaceuticals
The Allergan Pharmaceuticals Doctor's Office
Fred Wallace, O.D.
The Wallace Family Examination Room

Primary Care Module II
The Sullins Family Sub Waiting Area
Bryan Boozer, O.D., and Timothy C. Nichols, O.D.
The Bryan Boozer, O.D., and Timothy C. Nichols, O.D. Examination Room
The Dobbs Family Examination Room
The UAB School of Optometry departments of Optometry and Physiological Optics Faculty
The UABSO Faculty Doctor's Office
Anonymous
The Dickey, Yatzko, and Semes Examination Room
Theresa Glass, O.D., and Norman Johnson, O.D.
The Theresa Glass, O.D., and Norman Johnson, O.D. Special Testing Room

Reception and Vestibule
Vision Service Plan (VSP)
The Vision Service Plan (VSP) Vestibule
Alabama Optometric Association and the Alabama State Board of Optometry
The Alabama Optometric Association and the Alabama State Board of Optometry Reception Area

Reception Areas
CIBA Vision/Novartis
Essilor of America

Optical Services
Kenmark Optical
The Kenmark Opticians Office

Other Donors:
Safilo, USA; ClearVision Optical; Viva Int.; and Tura

Getting Involved
Alumni Board Members Set the Standard

The UAB School of Optometry has always had excellent support from its alumni association, and that group's success is due, in large part, to the hard work of the UABSO Alumni Board of Directors.

That should be no surprise, considering the type of people currently serving on the board. For them, high levels of involvement are standard, whether you’re talking about professional, academic, or even community associations.

“You can’t expect people to support you if you’re not willing to support them,” says Melissa Hoercher, O.D., a 1995 graduate of the UABSO who now sits on the Alumni Board. Hoercher received the Alabama Optometric Association’s Young Optometrist of the Year in October 2001. Her solo private practice, Eye Clinic of Prattville, PC was recognized as Autauga County’s Emerging Business of the Year, 2003.

In addition to her involvement in many local organizations and the UABSO Alumni Board, Hoercher also serves on the ALOA Board. “Look at what optometry has accomplished over the past decade,” she says. “This has got to be the most rewarding time in our history to practice optometry in Alabama. Membership in the Alumni Association has put me in the company of colleagues who have literally shaped our profession. It’s such a privilege to work with people like Drs. Cathie and John Amos, Doug Clark, and Robin and Jim Marbourg. These people are icons.”

Another active board member is Michael J. Carboni, O.D., a 1979 graduate who practices in Albertville, Alabama. Carboni has been active in local and regional organizations and is immediate past president of the UABSO Alumni Association.

“As outgoing UABSO Alumni Association president, I have been blessed with networking, relationships, and a common bond with our profession and school.

“As a small-town family practitioner, a husband, a father of active children, and a church and community participant, my time seems to dissipate almost instantaneously. To all who take the time out of their busy personal lives to serve the Alumni Association, thank you.”
Renovation Challenge
As of January 30, 2004

Class participation in the UABSO’s fund-raising efforts continued to grow in the early part of this year. The chart below shows the percentage of alumni who have given from each class. The UABSO extends its sincere thanks to all those who have given so far and asks for your continued support throughout the coming months. Please help your class achieve 100 percent. Remember, no gift is too small.

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<th>Year</th>
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“If you look at the history of the center, you’ll see that [the amount of funding] has gone up steeply in the last few years. That’s not me, that’s the researchers and the work they’re doing here that merits that kind of funding.”

— Kent Keyser, Ph.D.

Director of the VSRC and chair of the Department of Physiological Optics

“What started out as a two-week-a-year commitment then turned into something much larger.”

— Catherine S. Amos, O.D.

Outgoing chair of VSP

“Although amblyopia is certainly more easily prevented if detected and treated early, we believe that some success is possible for some older children.”

— Robert Rutstein, O.D.

UABSO professor