Vital Partnership

Barry Hoffman and Mary Ann Schrock-Hoffman make a philanthropic pledge to the Kellogg Eye Center in support of “great people doing great things.”
As our research program continues to grow, we can’t thank you enough for your support of our work. We have made outstanding strides in several areas this year, including groundbreaking research on the use of nanoparticles to study and combat eye disease and the move toward gene therapy, both of which you’ll read about on pages 4 and 5. We are increasing our emphasis on bringing to the patients in our clinics the discoveries we make in our laboratories, and we could not do that without your support.

Thirty-three years ago, when I accepted the position of Chair of the Department of Ophthalmology and Visual Sciences, our research program was small but promising. Today, we have 20 scientific laboratories and a large cadre of basic and clinical scientists who are moving the field of vision research forward in increasingly exciting ways. We have you to thank for enabling us to continue to expand our efforts.

I will soon step down as Chair of the Department, and I am pleased that Paul P. Lee, M.D., J.D., will take on the leadership of the W.K. Kellogg Eye Center and the Department of Ophthalmology and Visual Sciences as of February 1, 2012. He joins us from Duke University, where he served as Vice Chairman of the Ophthalmology Department and as the senior advisor to the Chancellor. Dr. Lee earned his undergraduate and medical degrees from the University of Michigan and added to his resume a law degree from Columbia University. He is excited about coming to Kellogg’s environment of rich collaboration and community support. He is committed to stewarding and enhancing the work we do, and I know you will enjoy hearing his plans for the future.

Thank you, as always, for your continued partnership in our endeavors.

Sincerely,

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

Philanthropy Is a Large Part of Vision Research Funding

Supporters of the Kellogg Eye Center provided almost a fifth of our research budget in fiscal 2011, in addition to contributing to our endowment and our capital expenditures. Overall, we received $3.64 million in gifts, including a large bequest for age-related macular degeneration research. A special effort by alumni, friends, and patients of Dr. Terry Bergstrom also raised more than $500,000 in gifts and pledges to establish the Terry J. Bergstrom Collegiate Professorship for Resident Education in Ophthalmology and Visual Sciences.

Of the $8.4 million the Kellogg Eye Center received for research, $1.6 million came from individuals and family foundations, including $232,000 in gifts made through the Annual Funds; $4.9 million came from federal grants; and $1.9 million came from funding organizations.
Barry Hoffman and Mary Ann Schrock-Hoffman moved to Michigan from Pennsylvania in 1982. “When we told our ophthalmologist where we would be living, he said that we were in luck—the University of Michigan had one of the finest eye care programs in the world,” Mr. Hoffman says. “He sent my records to U-M, and they have been following me ever since. I am fortunate to be in the care of Dr. Jennifer Weizer and Dr. Christine Nelson.”

The Hoffmans appreciate the welcoming environment at the Kellogg Eye Center, saying that everyone from the administrative staff and the technicians to the residents, fellows, and faculty physicians have made them feel comfortable, informed, and reassured. “When you are dealing with something as important as your vision, you want to be with people who are involved in the latest research,” Ms. Schrock-Hoffman says. Mr. Hoffman adds, “I have a lot of confidence going to a teaching hospital at a great university, where great people are doing great things.”

Being in a research-based academic institution makes it interesting to ask the physicians, “What’s new?” Mr. Hoffman says. “It’s amazing to hear about what they are working on and what they think is possible.”

To help clinicians and scientists at Kellogg reach their goals, the Hoffmans make annual gifts to the research program. “The work done here translates into a global impact, and we like being a part of that,” says Ms. Schrock-Hoffman, who toured the laboratories at Kellogg with daughter Hayley and was impressed with the remarkable work she saw taking place.

The Hoffmans recently made a multiyear pledge to research. The gift was made in memory of Charles and Ethel Schrock, Mary Ann’s parents. “We are really glad we did that,” Mr. Hoffman says. “It gives us an even stronger feeling that we are a part of this organization for the long term.”

The annual giving pledge benefits the Eye Center as well. “A pledge is something scientists can count on,” says Ms. Schrock-Hoffman. “They can hire another person or buy a piece of equipment when they know they have the funding in place.”

Mr. Hoffman retired in 2008 from Valassis, a marketing services corporation where he was executive vice president, general counsel, and a member of the board of directors. He is also a former U.S. Army officer and FBI agent. Ms. Schrock-Hoffman is a registered nurse who worked at the University of Michigan Health System before their daughters were born. Hayley is a senior at the University of Michigan, studying cellular molecular biology. Her sister, Elizabeth, graduated from Oberlin College and is completing a master of fine arts degree at Hamline University in St. Paul, Minnesota.

In addition to their annual gifts to Kellogg, the Hoffmans support the international outreach work of U-M’s Steven F. Bolling, M.D., a cardiovascular surgeon. Ms. Schrock-Hoffman also volunteers with a variety of organizations, including Compassionate Care Hospice and as a clinic nurse at the Hope Clinic in Ypsilanti, which provides free medical services to those in need.

Giving back is important to the Hoffmans. “We want our charitable contributions to do the most good for the most people,” Ms. Schrock-Hoffman says, “and the Kellogg Eye Center is the perfect place to accomplish that.”
Your contributions to the Kellogg Eye Center Annual Fund and the Alumni Annual Fund are critical to the success of our research program. Vision scientists spend each day searching for avenues that could lead to more effective treatments and cures. With your help we are advancing science for the benefit of our patients and for people around the world.

Patrice E. Fort, Ph.D., M.S.
Assistant Professor of Ophthalmology and Visual Sciences

Dr. Patrice E. Fort studies the mechanisms of retinal diseases such as diabetic retinopathy in order to develop novel treatments. Support from the Annual Funds has helped move his work forward by enabling him to conduct early-stage research studies. He recently secured funding from organizations including Fight for Sight by submitting data he collected through experiments made possible by the Annual Funds. He is also using his data to submit new grant proposals for additional funding.

Many researchers focus on one aspect of how diabetes affects the retina, which is the sensory membrane that lines the back of the eye. Dr. Fort, however, is looking at the problem of diabetes in the retina as a whole. He discovered that a family of proteins that help keep neuronal cells alive is overly expressed in animal models of diabetes. He demonstrated that while those proteins protect retinal neurons from various acute stresses, their protective effect is impaired in chronic conditions such as diabetes, and in turn, cell death increases tremendously. He also recently discovered that these specific proteins are similarly increased in other retinal conditions, such as retinal detachment.

With support from the Annual Funds and a grant from the Midwest Eye-Banks, Dr. Fort was able to begin looking at whether human retinas demonstrate the same suppression of the proteins that he saw in animal models. These studies could potentially show us how relevant the findings in animal models are to humans and open new therapeutic avenues for the treatment of these diseases.

Bret A. Hughes, Ph.D.
Professor of Ophthalmology and Visual Sciences and Professor of Molecular and Integrative Physiology

The support that Dr. Bret A. Hughes received this year allowed him to further the research project that similar support enabled him to begin last year. Dr. Hughes continues to study gene mutations that are associated with two types of inherited retinal degeneration—snowflake vitreoretinal degeneration and Leber congenital amaurosis. His research, which focuses on gene mutations in the potassium channel, could provide insight into the causes of these diseases.

Dr. Hughes and his laboratory have also benefitted from the Kellogg Eye Center’s purchase of a new shaking incubator, made possible by the Annual Funds. A shaking incubator is used for growing large numbers of molecules that contain DNA sequences from specific genes, such as the potassium channel gene that Dr. Hughes studies. The engineered DNA molecules, called plasmids, are introduced into cultured cells, allowing analysis of how gene mutations affect cell behavior. The shaking incubator, which is used widely by researchers at the Eye Center, helped Dr. Hughes determine that the mutation that leads to snowflake vitreoretinal degeneration and Leber congenital amaurosis results in potassium channels not opening normally. This work will further our understanding of these eye diseases and may eventually lead to new approaches to their treatment.
Thanks to support from the Annual Funds, Dr. Howard R. Petty completed preliminary studies on the use of nanoparticle labeling to identify molecules in human retinal tissue and has secured funding from the National Institutes of Health to continue his work.

The human eye is rich with natural autofluorescent molecules, such as lipofuscin, which makes viewing its molecular structures under a microscope very difficult. Dr. Petty developed a method of tagging molecules in the retina with fluorescent nanoparticles to enhance the contrast between the nanoparticle-tagged molecules and the background autofluorescence. This method allows researchers to get a clear view of how different compounds and structures are working within the retina. Dr. Petty used the method to show the extent of oxidation damage to retina tissue in patients with diabetic retinopathy. The ability to see the damage will allow researchers to focus on developing a targeted treatment to limit tissue injury.

Dr. Petty now hopes to develop therapeutic nanoparticles to treat oxidative damage in patients suffering from eye diseases. If new nanoparticles can be established, the next step would be to test them against a gamut of eye diseases, including age-related macular degeneration, diabetic retinopathy, uveitis and glaucoma. To do that, Dr. Petty would tag the therapeutic nanoparticles with the fluorescent nanoparticles he tested in the labeling experiments. Physicians and scientists could then monitor the success of the therapies by imaging the fluorescent nanoparticles with a laser scanning ophthalmoscope. Dr. Petty believes that nanoparticle treatments could be useful in a wide range of diseases and may have the potential to kill tumor cells.

Dr. Debra A. Thompson’s laboratory has long been a leader in identifying the specific genes that lead to inherited retinal degeneration. This year the support she received from the Annual Funds and from an anonymous foundation gift enabled her to advance two important research projects—projects that will help her achieve her goal of developing gene-replacement therapies to restore vision. The first project is part of her research on the genes responsible for Leber congenital amaurosis, a rare inherited childhood-onset eye disease. Dr. Thompson’s laboratory identified the first gene to be successfully replaced with gene therapy for that disease, and she is now trying to determine which genes will be the next best candidates for gene-replacement clinical trials—trials we hope to conduct at Kellogg.

Dr. Thompson is also helping to lay the groundwork needed for a clinical trial of gene-replacement therapy for patients with X-linked retinitis pigmentosa who have a mutation in the RPGR gene. Patients with this gene mutation experience profound visual deficits beginning in childhood, with most cases progressing to legal blindness by early middle age. Currently no treatments or cures are available for this blinding disease, but Dr. Thompson hopes that the pace of discoveries will quicken by establishing relationships with others who are working on similar projects. She has begun to work with colleagues at University College in London and at the University of Florida to develop the means to deliver to patients gene-replacement therapies for Leber congenital amaurosis and X-linked retinitis pigmentosa. This collaboration will facilitate the sharing of key ideas and discoveries that will ultimately bring new gene therapies to patients.
When we celebrated the opening of the new Brehm Tower at the Kellogg Eye Center last year, our theme was “Dedicated to Discovery.” Kellogg researchers are dedicated to finding cures for eye diseases—they have devoted their careers to this end—and they are incredibly thankful for your dedication to supporting their work. Your annual gifts enable these researchers to pursue promising avenues of inquiry, many of which don’t yet fall neatly within the scope of a grant proposal. Such discovery work can produce insights that will greatly impact current research and can lay the foundation for new hypotheses. Your gifts also support successful long-term projects and the purchase of new equipment that benefits our entire research team.

As our partners, your commitment to vision is critical. We are grateful that 28 percent of you have been giving for 10 years or more, and we appreciate all of our newer donors as well. (See the pie charts below for more statistics on giving to the Kellogg Eye Center.) It is your dedication that continues to propel vision research forward and will help create a bright future for families struggling with eye disease.

Becky Spaly
Donor Relations
bsp@umich.edu ~ 734.615.8625

Annual Donors Are Generous, Loyal

We received 478 Annual Fund gifts in fiscal 2011 from patients, families, friends, and alumni

- 92 of those contributions were first-time gifts.
- Gifts came from 26 states and from France, Japan, and Korea.
- The average age of our donors is 72.8 years.

The chart above shows the percentage of last year’s gifts based on their amounts.

The chart above shows the percentage of donors who have given for a number of years.
More than 90 friends of the Kellogg Eye Center heard research updates on diabetic retinopathy and Graves’ eye disease by Thomas W. Gardner, M.D., M.S., and Raymond S. Douglas, M.D., Ph.D., at the fourth annual Fralick Society Luncheon last October. For the first time, the event was held in the Oliphant-Marshall Auditorium at the Kellogg Eye Center and featured tours of the new research and surgery floors as well as the Low Vision Clinic in the new Brehm Tower. Fralick Society members are recognized for making gifts of $100 or more. This luncheon is a small gesture of gratitude to you for being such a large part of the Kellogg Eye Center. The event this year will be held on Saturday, November 5, at noon.
To qualify:

- You must be 70½ years of age or older
- The transfers must go directly from the IRA to qualified charities
- Gifts cannot exceed $100,000 per tax payer per year

The legislation includes some limitations. You should consult your tax professional if you are contemplating a gift under this law.

For more information, please visit www.giving.umich.edu/planning or call our Development Office at 734.615.0243.