The Next Generation of Leaders—A Gift for the Future
From the Chairman

Making an investment in vision research is a smart move. We hear this message loud and clear from some unexpected sources these days. State governments and big business are making the unambiguous statement that biomedical research needs to be on the fast track. What is our role in responding to their call to address critical health care needs?

Following in the footsteps of states like California, New York and New Jersey, Massachusetts Governor Deval Patrick recently announced an ambitious plan to invest $1 billion of state funds in the life sciences industry and to create the largest stem cell bank in the world. In states with so many other competing concerns – from education reform to gun control – why are such significant resources being directed to research? They have recognized that the downturn in federal research funding could have the doubly negative impact of driving the rising stars of life sciences research to other more welcoming countries as well as delaying the development of cures, each having serious implications for the health and vitality of our communities and economy.

State governments are not the only ones who are speaking out about the urgent need for advances in healthcare. Safeway CEO Steve Burd and other business leaders from Fortune 500 companies launched a major healthcare reform initiative this spring, bringing attention to a looming crisis and its expected impact on big business. As our workforce ages and turns to employers to cover the costs of care for chronic conditions, business leaders see the writing on the wall. Many blinding diseases and eye disorders are diseases of aging that affect tens of millions of Americans, and that play a major role in the growing costs of care. Vision research becomes increasingly important in addressing the problem that Burd and others face.

At Schepens Eye Research Institute, we are leading the global response to the urgent need for preventions, therapies, and even cures for blindness. We have responded to the shrinking of the National Institutes of Health budget by finding innovative ways to collaborate with those who share our goals. Our robust Corporate Alliances Program and our partnership with the Department of Defense have been essential in helping us move significant ideas forward. Private philanthropists have also played a major role in advancing cutting-edge research, like that of our regenerative medicine program, in the face of outdated legislation and limited federal support. We are working hard to facilitate collaborations between our researchers and their colleagues at other organizations. Through partnerships with other research and clinical organizations, we encourage the cross-pollination of ideas to step up the pace of discovery.

From the lives of everyday people to the health of the nation’s economy, the impact of finding effective therapies and cures for blindness cannot be overstated. As we recognize this, we bring about an unprecedented alignment of public and private forces for one purpose – to give big ideas wings.

Sincerely,

Kennett F. Burnes
Chairman of the Board
Schepens Eye Research Institute
President and Chief Executive Officer, Cabot Corporation
Scientists trace their lineages, drawing lines of connection from mentor to trainee. These lines, when seen together, tell a story. A mentor’s passion for discovery infects the next generation, creating the conditions necessary for major breakthroughs. Count the many eminent scientists and clinicians who trace their scientific lineage to Schepens Eye Research Institute, and one sees the connections between discoveries that before may have seemed completely unrelated; we are at the epicenter of innovation in vision research, a home to global leaders who have shaped the conversation about new treatments, therapies and cures for more than 50 years.

Internationally, Schepens Eye Research Institute’s faculty and trainees play a leading role in driving progress. One current example is the Dry Eye WorkShop (DEWS), an international group of more than 60 scientists, clinicians and industry specialists, two-thirds of whom are Institute scientists or alumni. Over a period of three years, this group has worked to evaluate and update the definition, classification and diagnosis of dry eye and related ocular surface diseases, which they have presented at several conferences and meetings. Dry eye disease is a chronic, progressive disease that affects approximately 40–60 million people in the US and 100 million worldwide. According to the 2003 Morgan Stanley Dry Eye Report, diagnosis rates in the US are estimated to be less than 20% of the dry eye patient population. The DEWS effort will be critical to extending treatment to all who need it.

Institute scientists and alumni are prominent on the global stage, and their impact gets attention. The Association for Research in Vision and Ophthalmology (ARVO), with 12,000 members in more than 70 countries around the world, has often recognized the Institute’s leadership in vision research. This year, Dr. Ilene Gipson received ARVO’s highest research honor, the Friedenwald Award, for her seminal contributions to basic and clinical understanding of wound healing, epithelial anchorage and mucin biology in the areas of ocular surface and cornea research. Moreover, Dr. Eli Peli was the recipient of Lighthouse International’s 2006 Pisart Vision Award. This prestigious award annually honors someone who has made an extraordinary contribution to the prevention, cure or treatment of severe vision impairment or blindness. An electrical engineer and an optometrist by training, Dr. Peli has devoted his career to creating and evaluating new technologies to help low vision patients regain their ability to conduct everyday tasks such as reading, walking and driving.

Our network of innovation has never been stronger, and major advances in eye health are within our grasp. I am proud that our members continue Schepens Eye Research Institute’s tradition of defining the future of vision research and treatment—through their own groundbreaking work, and by shaping new generations of scientific and medical leaders.

Sincerely,

Michael S. Gilmore, PhD
President, CEO and
DeWalt and Marie Ankeny Director of Research
The Next Generation of Leaders—
A Gift for the Future

Photos courtesy of Peter Mallen and Graham Ramsay
As we look ahead into the next century, leaders will be those who empower others,” says Bill Gates, who founded a software empire, yet spends much of his money and time reaching out to support the talent and growth of others. This sentiment and the mission it implies is one that Schepens Eye Research Institute embraced at its founding more than five decades ago and one which is alive, well, and growing today.

“Empowering young vision scientists to take the knowledge and inspiration we offer and carry it throughout the world is a major focus for all of us at the Institute,” says President Dr. Michael Gilmore. “It is as vital an endeavor as our daily exploration and major discoveries,” he adds. “Fostering scientific leaders for tomorrow ensures the continuity of our mission to restore the gift of sight to millions worldwide.”

Each year, more than 60 post-doctoral and pre-doctoral scientists benefit from the guidance offered by the Schepens Eye Research Institute’s faculty, and over the years, at least 50 full professors have spent their formative years under the tutelage of our world-class scientists. Many more who “grew up” here have advanced around the globe, through industry and academia, continuing the Institute’s traditions of scientific excellence and inspiring hope. Shaping the next generation of scientists is a multi-faceted endeavor.

The Mentor—A Wise and Trusted Guide
On June 20, 2007, Senior Scientist Dr. Patricia D’Amore received the 2006 A. Clifford Barger Excellence in Mentoring Award, given each year by Harvard Medical School (HMS) to faculty nominated for the prize by their trainees. Dr. D’Amore, a Professor of Ophthalmology and Pathology at HMS, was chosen because she exemplifies the finest qualities of a teacher and mentor, guiding young scientists to take their place in the scientific community as researchers and leaders.

While the award directly commended Dr. D’Amore, it also acknowledged the Institute and its faculty for their longstanding commitment to the special role of the “mentor.” Mentoring is the most personal, intense and lasting aspect of the training that goes on at Schepens Eye Research Institute. Each post- or pre-doctoral student at the Institute works with a mentor. Mentors—usually the heads of laboratories—meet regularly with trainees, and, over time, help to shape and support the interests, scientific creativity and technical and leadership skills of their “apprentices”.

“My relationship with Pat D’Amore has been, and continues to be, one of the primary professional relationships of my career,” says Dr. Diane Darland, now Assistant Professor of Biology at the University of North Dakota in Grand Forks, who was a post-doctoral fellow in Dr. D’Amore’s laboratory from 1998 to 2003. “Among the many things I learned from Pat is how important it is to study the basic biological questions that most intrigue me, since that is what will help to keep creativity and enthusiasm flowing,” she says, adding that she sees “mentoring” as an essential ingredient for the growth of a scientist.

“Watching someone change and mature as a scientist and a person is a very gratifying part of my job, and it is also a way for me to give back for the mentoring that I received,” says Dr. D’Amore. “Good mentoring can make or break people. You can turn them on to science in a big way or turn them off forever,” she says.

Dr. D’Amore believes that research is collaborative, not hierarchical. “We are all working together. I see myself as a coach or a guide, not a boss. I am also always a learner myself. I try to create an atmosphere where people can have fun and know that I have their best interests at heart.”
Adds Dr. Darland, “I think mentoring plays a significant role in vision research, as in any research discipline. While there are certainly individuals who stand out, it is in essence an integrative community working to solve basic research and clinical questions. Mentoring is an integral part of that process.”

Senior Scientist Dr. Reza Dana agrees: “I would say that the two most enriching aspects of what I do on the research side are education and discovery, and they really go hand in hand. The actual work of research is done by our trainees; they are making the discoveries. As mentors, we can guide them as they need our perspective and expertise,” he says. “And, by being mentors, we also keep learning. It is the working and learning together that makes our science better. This is not only the checks and balances of our academic mission; this is also what really differentiates us from many other places where scientific discovery is underway, but where teaching and mentoring are not principal goals, such as in industry.”

Says Dr. Pedram Hamrah, a clinical fellow in Cornea & Refractive Surgery at the Massachusetts Eye & Ear Infirmary (MEEI), who worked with Dr. Dana for two years at the Institute and is continuing to train with him at MEEI today, “The experience I had in Dr. Dana’s laboratory has been the most rewarding experience of my career. I can truly say that without this experience, I would not have chosen to stay in vision research.”

Scientific mentoring goes both ways, according to Dr. Joan Stein-Streilein, a senior scientist at the Institute. “I try to give my trainees tools that help them to organize their thoughts and enrich their creativity. Many of the mentoring strategies in science are similar to those used to teach an art student to find his or her creativity. As always, when you develop a mentoring relationship with a bright creative student of science, both the student and the mentor learn,” she says. “Science cannot be done in a vacuum, and this basic relationship between a mentor and a student allows for a secure environment to begin to talk about testing primitive ideas. These discussions of primitive ideas yield to the development of hypotheses and methods to test the postulates.”

Dr. Douglas Faunce, a former post-doctoral fellow of Dr. Stein-Streilein says: “The role of the mentor is critical if the trainee is to become a successful, independently funded researcher. A mentor has to be more than just a good scientist and teacher him or herself. Mentors have to be able to recognize,

“The function of leadership is to produce more leaders, not more followers.” —Ralph Nader

foster, and maintain interest, creativity, and enthusiasm among their trainees. Joan was all this for me.” Dr. Faunce is now an Assistant Professor in the Departments of Surgery and Immunology/Microbiology at Loyola University Stritch School of Medicine in Illinois.

Mentoring often goes beyond the fellowship or formal training period, according to Dr. Stein-Streilein. “I still discuss ideas with my PhD mentor, and I am always pleased to hear from those whom I have mentored. The mentor in this world of science is very special. It really doesn’t exist quite
"The growth and development of people is the highest calling of leadership."
—Harvey S. Firestone

in the same way in many other professions. Student scientists must pursue their own interests, focus their own research, create their own goals, and we, as mentors, must give them tools to help them succeed.”

Training Programs—The Support of a Collaborative Community

Although the mentor relationship is the most intimate and intense educational experience at the Institute, trainees also receive a number of additional structured opportunities to expand their investigative, writing, team and leadership skills.

The Institute Post-Doctoral Training Program for Vision Scientists and the Training Program in the Molecular Bases of Eye Diseases are headed by Dr. D’Amore. Through the Training Program for Vision Scientists, each post-doctoral fellow receives a mentor as well as a designated, additional advisor who is available for consultation and is committed to the student’s success. The program also consists of weekly seminars, where each student presents at least once. Training in ethics and responsible research conduct are also part of the curriculum.

“Our goal is to make sure that post-docs leave here equipped to run their own labs, should they choose. We want them to know how to give seminars, write and review manuscripts, utilize statistics appropriately, create graphics and images, write animal protocols, assemble and give poster presentations for major conferences, and write grants,” says D’Amore.

The Training Program in the Molecular Bases of Eye Diseases, funded by a grant from the National Eye Institute, is available to students of faculty members in the Department of Ophthalmology at HMS and includes students from HMS, Mass Eye & Ear, the Institute and other HMS affiliates. The goal of this program is to provide expertise in molecular approaches to ophthalmology and vision research, and includes a course especially designed for the Program in which experts lecture on molecular aspects of various ocular pathologies. Five trainees, with specific interest in this area of investigation, receive financial support from the grant for their first year, and then are expected to write their own grants to sustain their research for the remaining years of their training.

Dr. Dana heads yet another training program, the Harvard-Vision Clinical Scientist Development Program, which offers a customized and structured learning and research experience to a select group of qualified clinician scientists looking for additional mentored learning to hone their skills as independent scientists as they perform in their roles as junior faculty members at Harvard. They complete core courses and a summer immersion program and meet regularly with Dr. Dana.

"The final test of a leader is that he leaves behind in others the conviction and will to carry on.” —Walter Lippman

A third special training program—in this case, for pre-doctoral students—is available through the NIH-funded, Harvard-wide Program in Ocular Immunology. Dr. Joan Stein-Streilein is the principal investigator for this grant, which exposes young scientists to the field of ocular immunology.

The Future Is Bright

“We believe that the combination of structured training and intense mentoring helps us inspire scientists who can take the mission of this organization, run with it, and at the same time continue to collaborate with us on the most important eye research mysteries and discoveries,” says Dr. Gilmore. “Excellent training creates powerful leaders, and those leaders will advance our shared mission to preserve vision and cure blindness.”
**Question:** What is the relationship between nutrition and good vision, and what should I do to keep my eyes healthy?

**Answer:** The old saying “you are what you eat” is as true for your eyes as for any other part of your body. Just as eating right keeps your heart healthy, so, too, it keeps your eyes functioning well as long as possible, even if you have a genetic predisposition toward eye disorders.

In fact, if you follow a heart-healthy lifestyle, you will most likely be taking good care of your eyes, too. Plan a diet rich in a variety of fruits and vegetables, limiting the amount and kinds of fat you consume and eating more of what are considered “good” fats. It also means exercising daily and throwing away your cigarettes.

While these are general guidelines for an overall healthy lifestyle, there is scientific evidence to support such a regime specifically for your eyes. Although we have not discovered everything about the effect of food on vision, we do know three things.

First, we know that obesity, which has been increasing over the past two decades and is now epidemic in the U.S., is also one of the most common and dangerous issues for preserving good vision into older ages. Studies have found a direct relationship between obesity and the onset and progression of cataracts and age-related macular degeneration. Obesity is also a major risk factor for diabetes with its link to diabetic retinopathy, one of the primary causes of adult blindness.

Second, recent studies have shown that eating foods rich in omega-3 fatty acids—the “good” fat found in fish, some nuts and vegetables such as avocados—can prevent or lessen the symptoms of dry eye syndrome, which can be extremely debilitating. Five million people in the U.S. suffer from dry eye syndrome, and post-menopausal women are especially at risk.

Our laboratory recently published a large epidemiological study that pointed to a connection between the ratio of omega-3 fatty acids and the omega-6 variety (found in meats and dairy products) and dry eye disease. Most of us consume much more omega-6 than omega-3. But people in the study with a better balance were less likely to have dry eye syndrome.
It is also becoming evident that balancing omega-3 and omega-6 fatty acids can protect against age-related macular degeneration, and a large national clinical trial is underway to determine the effective levels of omega-3 supplements for those at risk.

Third, research has shown that micronutrients (vitamins and trace minerals) may slow the progression of macular degeneration and cataracts. A large study sponsored by the National Eye Institute indicated that a supplement containing vitamins C and E, beta-carotene and zinc could slow the progression in those at risk for severe AMD and help save their vision. Although not as clear-cut, micronutrients may also slow the development of cataracts, but only after years of daily consumption.

All three of these issues—obesity, the balance of good and bad fats and daily intake of vitamins and trace minerals (in fruits and vegetables) are also important to the prevention of heart disease and other age-related problems.

The bottom line and the unified public health take-home message is that the same well balanced diet rich in a variety of fruits, vegetables, and omega-3 fatty acids will help not only your heart but will also save your sight. For those at risk for severe AMD, a supplement containing vitamins C and E, zinc, and beta-carotene (those who smoke cigarettes should check with their doctor before taking beta-carotene) helps delay vision loss.

Debra A. Schaumberg, Sc.D., O.D., M.P.H., an Adjunct Scientist at Schepens Eye Research Institute, is also an Associate Professor of Medicine and Ophthalmology at Harvard Medical School and Brigham & Women’s Hospital. An epidemiologist who specializes in identifying risk factors for age-related eye disease, she has published studies on the causes of dry eye syndrome, cataracts, age-related macular degeneration (AMD) and diabetic retinopathy, as well as the importance of omega-3 fatty acids in the diet.
**Question:** I have macular degeneration. Can you give me an example of the research you do to help people like me?

**Answer:** People who are losing their vision from diseases such as macular degeneration automatically create ways to compensate for their vision loss. Sometimes those unconscious adjustments are very useful, while other times they can make processing visual information from the environment even more difficult. We aim to understand the adjustments people make, and suggest behavioral or environmental changes if the adjustments are not helpful.

We begin by comparing the visual behavior of people with normal vision and those with low vision in real-life situations, observing differences in behavior undertaking similar tasks. From those observations we can make recommendations that translate into new devices, adaptive training programs or modifications in work or living environments.

For instance, we are trying to understand why people with macular degeneration walk more slowly and trip and fall more frequently when walking down a hallway than normally sighted people. By attaching a small specialized camera, known as a mobile eye tracker, under the eyes of normal subjects and those of subjects with macular degeneration, we are able to follow eye movements as they walk down a hallway. We have found that people with macular degeneration make many times more eye movements than those with normal vision. They are constantly looking at the walls, the corners and the floor as they make their way to the end of the corridor. Normally sighted people, on the other hand, make a direct line to the hallway’s end with only an occasional extraneous glance. We believe that this constant shifting eye movement may significantly slow a person down and actually prevent him or her from processing well enough to see objects that could make them trip or fall.

This kind of information may help us suggest new behaviors that could help a person with low vision compensate. For instance, we might encourage longer, slower scanning of the hallway before and during a trek. While counterintuitive, it might increase visual comprehension of the entire space and increase walking speed.

One of our post-doctoral students has come to just such a conclusion in one study of reading and macular degeneration. He found that if people with macular degeneration read each word and scan text lines slowly, they actually increase reading efficiency and speed because more information is obtained from each eye fixation.

Simply put, our purpose is to maximize a person’s remaining vision to give him or her the fullest possible life.

Dr. Peter Bex is an Associate Scientist at Schepens Eye Research Institute and Associate Professor of Ophthalmology at Harvard Medical School. His research uses behavioral assessment of visual function to increase understanding of visual processing in people with vision loss from diseases such as macular degeneration, glaucoma and amblyopia. The ultimate goal is to help people maximize the vision they still have.
It is true that it takes a village to raise a child, especially when that child has severely limited vision. Born with congenital cytomegalovirus (CMV), Kyle Rock has been legally blind since birth. When the Rocks moved to the Boston area in 1998, they quickly developed a network of valuable resources that included friends and local vision organizations, especially the Perkins School for the Blind, Inter-Actions Camp for children who are visually impaired, the Carroll Center for the Blind, and the Massachusetts Commission for the Blind.

The Rocks relied on this network when Kyle wanted to join the carpentry program at Tri-County Vocational High School. The school had concerns about a legally blind student using power tools, but Ed and Jill Rock supported Kyle’s goal and reached out to the Carroll Center to help educate school administrators and make a case for his ability to operate the equipment safely. Kyle was extremely successful in the program and crafted a beautiful grandfather clock for his senior project that is now lovingly displayed in his family home.

Continuing the search for ways to aid his condition, Kyle’s mother discovered a source of hope in the form of Schepens Eye Research Institute, whose groundbreaking research is looking to use stem cells to treat retinal disease. The family made the decision to support the Institute financially, based on their desire to direct their personal resources to a place that was meaningful to them and their son. The Institute also proved to be the best place to find the technologies that could help him live his life to the fullest today.

Now 19 years old, Kyle has completed his freshman year at Green Mountain College in Vermont. He is a motivated student and has adapted to campus living by using techniques to maximize his remaining

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Eleanor G. Shore, M.D.

Trustee Supports Institute with a Tax-Wise Gift

Schepens Eye Research Institute’s affiliation with Harvard Medical School has yielded many benefits to both organizations. One of the great byproducts of this relationship for the Institute has been the distinguished service of Dr. Eleanor G. Shore as Trustee for the last 14 years.

As a primary care physician and former Dean for Faculty Affairs at Harvard Medical School, Eleanor has a unique understanding of the critical role that basic and clinical research play in developing treatments for eye disease. In fact, Eleanor believes that “the discoveries made at Schepens Eye Research Institute will help preserve eyesight all over the world.”

Although Eleanor and her family have not been afflicted with eye disease, she feels strongly enough about the work at the Institute that in addition to her stewardship as Trustee, she has also chosen to support the Institute financially. As Eleanor recently remarked, “Individual gifts are essential complements to federal and foundation support if the talents of our researchers are to be fully realized.”

In 2006 Eleanor was able to take advantage of the recently enacted Pension Protection Act (PPA) to make a gift with funds distributed directly from her IRA. In the past, one would have to withdraw money from his or her IRA and pay income taxes on the withdrawal before making a charitable gift. Under the PPA, individuals aged 70 ½ or older can transfer funds directly from their IRA to charitable organizations, without having to declare the distribution as taxable income. However, like most favorable tax laws there is a catch: these gifts can only be made in 2006 and 2007. By making a tax-wise gift last year, Eleanor was able to enhance her contribution to Schepens Eye Research Institute, and she and her husband, Miles, plan to do the same again in 2007.
Upon her retirement two years ago, Eleanor decided to cut back on many of her activities so that she could spend more time with her four grandchildren, the youngest of whom (born in late 2006) is named after her. However, she has continued with those causes that are particularly close to her heart. In addition to her Trusteeship at the Institute, she is also active in fundraising for the Shore fellowships, which support junior faculty at Harvard Medical School and its affiliates who might otherwise get derailed from their focus on research. One such fellowship, the Alice Adler Fellowship, supports the activities of junior researchers at Schepens Eye Research Institute.

The time that Eleanor has been able to spend with her grandchildren has also given her a greater appreciation for our research. The impact of the Institute’s research may yield benefits to her grandchildren’s generation—sparing many of them from the devastating effects of eye disease.

To learn more about making a tax-wise gift to support our research, please call the Development Office at 877.724.3736 or send an e-mail to: george.constant@schepens.harvard.edu.

Vision. Although Kyle will not be able to drive a car, he maintains his independence with tools like a “Zoom Text” enhancer for his computer, a text reader to read his lecture notes, books on tape, a hand-held monocular, and a hand lens. Kyle’s parents are very proud of his persistence; typical tasks can take twice as long for him, but his dedication to his goals never wavers.

“We want more families to know that by contributing to the Institute, they are supporting potential advancements that can help them or a family member,” stated Ed Rock. The Rocks are working with the Institute to pursue an on-line community for families like theirs to connect and learn what opportunities, technologies and new discoveries are currently available or on the horizon. They hope to launch this new resource later this summer. “With the right support, there is so much possibility,” says Jill.

For more information on how to make a contribution to benefit vision research, contact Melanie Saunders at 617.912.2564 or by e-mail at melanie.saunders@schepens.harvard.edu. You can also make an on-line donation by visiting our secure site at www.schepens.harvard.edu.
Collaborating for Cures

Thaddeus P. Dryja, M.D., Head, Translational Medicine in Ophthalmology and Molecular Genetics at Novartis Institutes for Biomedical Research in Cambridge, MA, and Trustee, Schepens Eye Research Institute, answers questions about the advantages inherent in our Corporate Alliances Program.

Question: From your perspective as a professional in the pharmaceutical industry and as a trustee at the Institute, why is it important for an organization like Schepens Eye Research Institute to establish alliances with industry?

Answer: The primary motivation for a career in science is to learn about the world around us: what is the earth made of, how it functions, how it is organized, how we arrived here, and what is our future. Biomedical scientists have a much more specific goal, and that is to provide information that ultimately may help us to understand diseases that afflict humans. Special rewards come whenever a scientist makes a discovery that will have a foreseeable impact on human suffering.

During the course of their work, scientists at the Institute may obtain insights into new ways to treat blinding diseases. They may recognize a new biochemical pathway that is fundamental to the cause of a disease, or their work may show how augmenting or interrupting some cellular process changes a disease in an animal model in a beneficial way. The “eureka moments” do not, however, lead directly to a drug. Rather, they allow one to speculate about a possible therapy. To test the speculation requires enormous teams, and these teams are the core of large pharmaceutical firms like Novartis.

The flow of ideas and technologies can also travel from industry to academia. There are large basic science research laboratories at pharmaceutical and biotechnology companies. In addition, these companies obtain a wealth of information from clinical trials of new drugs. The results from these studies can stimulate the conception of or aid in the design of new experiments at academic laboratories like those at the Institute to further refine our understanding of human disease.

Question: What does the Institute gain from a collaboration?

Answer: Part of the reason for the existence of both Schepens Eye Research Institute and biotechnology companies is to innovate, and innovation requires intelligence, information, and communication. Both the Institute and Novartis are staffed with superbly qualified and brilliant scientists. The communication between such groups can provide the final ingredient for producing big breakthroughs. Novartis generates ideas for new therapeutic approaches internally, and it welcomes the opportunity to explore these ideas with academic researchers. A close relationship between Schepens Eye Research Institute and a large pharmaceutical corporation like Novartis can provide benefits for both institutions, and more importantly, it can provide benefits for patients.

Question: How does it benefit corporations?

Answer: It is generally not feasible for a single scientist or small laboratory in an academic setting to assemble and finance the work necessary to create drugs or to test novel approaches to therapy. A major mission of a company like Novartis is to conduct these drug-discovery programs. This work is motivated by the confidence that an occasional insight from a scientist, either from Schepens Eye Research Institute or from within a pharmaceutical company like Novartis, will occasionally result in a new drug that will provide a magnificent benefit to humans for the rest of time. The quality of research at the Institute makes it rank high on the list of academic laboratories to pay attention to and to collaborate with.
Question: What role do you (or someone in your position) play?

Answer: I have multiple duties at Novartis. My primary duty is to design and conduct the early clinical trials of new drugs to see if they are safe and likely to have the desired effect on a disease. In the course of this work, I interact with basic scientists in Novartis and in academia to identify biochemical targets that might be the topic of a drug discovery effort. A close relationship with the scientists at the Institute helps me to come up with those ideas and in turn allows those scientists to learn of projects and new ideas at Novartis that might be ripe for collaboration. Of course, all of the interactions have to be conducted with the appropriate respect for and protections regarding intellectual property on both sides. I would consider it a major achievement of my lifetime if I was able to facilitate a new therapy that resulted from a collaboration between Novartis and Schepens Eye Research Institute.

Upcoming Vision of Beauty luncheon chairs.

Front row: Andrea Stark; Laurie Silvers; Herme de Wyman Miro, Grand Honorary Chair; Michele Millard. Standing back: Colleen Bain; Kay Lyons; Monika Preston; Anne Moran and Nancy Raquet. Not pictured: Sandy Krakoff.

Vision of Beauty

Who: Grand Honorary Chair Herme de Wyman Miro
Honorary Chairs Judith Murat Grubman
Kathryn Vecellio
Chairs Colleen Bain
Sandy Krakoff
Kay Lyons
Michele Millard
Anne Moran
Monika Preston
Nancy Raquet
Laurie Silvers
Andrea Stark

What: Vision of Beauty Luncheon
Where: Mar-A-Lago Club Palm Beach, Florida
When: November 29, 2007
Why: Season Kick-off Event for Schepens Eye Research Institute

Contact: Ann Marie Ware, 617.912.2573
Save the date!

Schepens Eye Research Institute’s Annual Meeting, October 19, 2007
Starr Center for Scientific Communications, Charles River Plaza, Boston, MA

Join us to learn about the latest advances in vision research.

Schepens trustees, corporators, friends, faculty and staff will hear a “State of the Science” address from Institute President Dr. Michael Gilmore, as well as from keynote speakers who will share their views on the opportunities and challenges facing biomedical research.

Reserve your seat today!

For more information, contact Nina Collins at 617.912.2527 or nina.collins@schepens.harvard.edu.