Millions of dollars are spent every year on research in ophthalmology, much related to glaucoma. This research occurs at many different levels of complexity and with many different purposes.

New ideas are an important part of research. But ideas unrealized are of no value. The real challenge of research is the combination of

• Coming up with an original idea
• Expressing the idea in a way that allows it to be tested
• Testing the idea in a way that is likely to yield a valid result
• Interpreting the result, incorporating it into what is already known, and discussing its significance; and
• Letting the world know.

The Idea

Few people can handle all five of these different aspects of research. Some are veritable “idea trees” waiting for their hypotheses to be plucked by others, or having them ripen and fall on the ground to be claimed and utilized by others. Idea people are frequently brilliantly astute observers who see things that others do not see.

The Question

On the Glaucoma Service of Wills Eye Hospital ideas for research frequently come from the glaucoma specialists themselves. For example, we

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are all faced with the challenge of correctly diagnosing glaucoma in individuals seeking our care. Glaucoma is not easy to diagnose. The days are long gone when it was believed, incorrectly, that anyone with an eye pressure over 21 mm Hg had glaucoma. It would certainly be helpful if there were some other objective characteristic whose presence might accurately and consistently point to a diagnosis of glaucoma.

Over the years I have noticed that individuals with an “acquired pit of the optic nerve” (a defect in the normal continuity of the optic nerve, acquired rather than congenital) often seem to turn out actually to have glaucoma. This idea or clinical impression of mine, however, is of little or no use unless it is true. It must be tested. Research must be done. It is this process that I would like to review with you.

First, then, the “idea” or question must be stated clearly. Using our example, we ask, “Are acquired pits of the optic nerve characteristic of glaucoma?”

The Testing

Next, to determine the answer we must first be as certain as we can about what kind of data are being tested: 1) people we say have glaucoma really must have glaucoma, and those we say do not have glaucoma must really not have glaucoma; 2) what we call an acquired pit of the optic nerve must be an acquired pit of the optic nerve, and that when we say a pit is not present, it must not be present.

However, it is not easy to be certain about these data. It is difficult to tell, in the early and moderate stages of glaucoma, whether a person really does have glaucoma, because many people have findings that resemble glaucoma but are not glaucoma. Additionally, it is impossible to be sure that a person does not have glaucoma, because the process of glaucoma may have started but still not be recognizable.

To complicate matters more, acquired pits do not come with labels on them. To recognize a pit requires a great deal of skill, and consequently they are frequently missed in examinations. On the other hand, the examiner may think he “sees” a pit that is not actually there.

Bias is also a problem. For example, if the examiner knows that a patient has glaucoma, and also believes that acquired pits of the optic nerve is characteristic of glaucoma, then that examiner tends to interpret changes in the optic nerve as being characteristic of optic nerve pits. His bias may lead him incorrectly to think something is a pit when in fact it is not. We all know that the experience, skill, and bias of the observer strongly affect the accuracy of the observation that he or she is making.

The reader might jump to the conclusion that, given these problems, it is impossible to come up with any accurate conclusion about a clinical question such as whether an acquired pit of the optic nerve is characteristic of glaucoma.

Fortunately, there are research techniques that can be used to mitigate each of these three problems.

- First, consider the problem posed by the fact that it is often difficult to say whether a person actually has glaucoma or does not. Here we could establish two different groups of study patients: in one group will be those who
have glaucoma with a certain probability, and in the other, again with a certain probability, those who do not have glaucoma. If these two probabilities are known, they can be compared with regard to the presence or absence of an acquired pit by using standard statistical techniques.

• Second, we can reduce the problem posed by the uncertainty as to the ability of an observer to recognize acquired pits correctly by testing the observer's ability in comparison with individuals who are recognized experts in recognizing acquired pits. The accuracy and reproducibility of that observer (or, more important, those observers) in recognizing optic pits, then, can be determined, and this information can then be factored into the results.

• Finally, the bias of the observers can be controlled by making sure that they do not have any information about the patient except the image of the optic nerve under investigation.

The Interpretation and Incorporation

Now let us assume that a good question has been asked, an appropriate methodology to try to answer it designed, and that that methodology has been meticulously followed. Outcome: data. Those data are not a conclusion but rather just data. The next step is making sense out of that accumulation of information, acknowledging the shortcomings of the study design (and there are always some shortcomings), utilizing appropriate techniques of evaluating likelihood (because that is all that statistics is), and then relating the data to the real world.

For example, let us say that our study shows that an acquired pit of the optic nerve is so characteristic that when it is observed it means that the person has glaucoma, for sure! This information, however, may be clinically useless if an acquired pit of the optic nerve is so difficult to recognize that very few doctors have the time or knowledge to determine whether a patient has an acquired pit.

“Merely because somebody finds something to be ‘true’ does not mean that that finding is useful.”

Or perhaps we find that acquired pits of the optic nerve occur in only 0.0001% of people with glaucoma. If that were the case it would not make sense to waste precious time with a patient looking for an acquired pit of the optic nerve; there would be many more important things to look for.

The point is that merely because somebody finds something to be “true” does not mean that that finding is useful. More generally, it is the researcher’s responsibility to put into context the significance of his or her findings. Some things are so obvious that they do not need to be studied. Other things do not deserve studying. For example, it would not be appropriate to conduct a research project to determine whether hitting the eye with a sledgehammer causes it to become damaged. Nor would it be appropriate to conduct a study to determine whether blue-eyed individuals with glaucoma are more frequently named Mary or Patricia.

The Telling

The final step in research is telling the world what has been discovered. For some this is the most difficult part of all. My files are full of papers in various stages of completion. Believing that one has answered the question oneself, often the excitement and urgency abate. The final phase, completing the manuscript, waiting for the editor’s response, handling the rejection or request for revision, are tasks that require perseverance and maturity. For those who make their living from research, the published paper is the most important part of assuring a continuing income. But, on the most fundamental level, if the paper is not published, the research might as well not have been done. No one will benefit.

Conclusion

One reason why research is often best accomplished by teams is that few investigators have the capability to handle all aspects of research, from conceiving the idea to sharing the outcome with the world through the written word. Fortunately for all of us, the Glaucoma Research Center at Wills is developing just such a team.
No matter how good the research team, no research would be possible without the cooperation of glaucoma patients who agree to participate in our studies as well as those who help us meet the high costs of performing quality research. Those whose circumstances allow them to do either are bright lights in our world. After all, discovering new knowledge, the goal of research, is one of the most important ways to make the world better, better in every sense — healthier, happier, and more connected.

What are the disadvantages and advantages, from the patient’s point of view, of participating in a research trial? The disadvantages may be considerable.

(1) A research trial will take up the patient’s time and may introduce significant and perhaps even irritating inconveniences.

(2) An investigation will almost certainly require standardization of care, and the best standardized care is never as good as the best individualized care.

(3) There is often some risk to the patient involved in a clinical trial.

(4) There is always uncertainty as to whether the participation will be of any benefit whatsoever, not just to the patient but to anybody.

(5) Finally, if a study has not been designed properly with appropriate safeguards the patient may suffer an invasion of privacy or actual damage.

The advantages of participating in a research trial are also real:

(1) The test or treatment being studied may not be available to anybody else other than those participating in the study.

(2) Knowing that the institutional review board will review the research project and would not approve a study which puts patients at risk unnecessarily, the principal investigator is likely to design a study in which there may be some very real advantages to the participants in terms of free tests such as visual field examinations or optic disc analysis.

(Continued on Back Page)
Glaucoma Research Center Actively Recruiting Patients for Studies

The Glaucoma Research Center is actively recruiting patients for the following studies. If you are interested in participating, please speak with your doctor to find out if you are eligible.

- A study comparing medication therapy to laser therapy with the new SLT laser as an early treatment for patients with glaucoma. Patients should not have been on glaucoma medications for more than 14 days in their life and have been diagnosed with primary open-angle glaucoma.
  
  **Sponsor:** Lumenis  
  **Principle Investigator:** Dr. Katz

- A study to test how well the medication Cosopt lowers eye pressure in glaucoma or ocular hypertension patients. Patients who have an eye pressure of 30 mm Hg or higher and who have not been treated in the last 4 weeks are needed.
  
  **Sponsor:** Merck  
  **Principle Investigator:** Dr. Wilson

- A study to evaluate which of the two medication combinations, Cosopt (Alphagan/Timoptic) or Xalatan/Timoptic, increases blood flow in the eye more.
  
  **Sponsor:** Merck  
  **Principle Investigator:** Dr. Katz

- A study comparing the safety and efficacy of a Lumigan/Timoptic combination with each medication by itself in patients with glaucoma or ocular hypertension.
  
  **Sponsor:** Allergan  
  **Principle Investigator:** Dr. Katz

- A pilot study to learn if there is a genetic basis for angle-closure glaucoma. We are looking for patients with primary angle-closure glaucoma who have about 10 blood relatives who would be willing to come into Wills for genetic testing (a blood test). The relatives do not have to be diagnosed with or suspected to have glaucoma.
  
  **Funding being sought**  
  **Principle Investigator:** Dr. Spaeth

- A study evaluating how closely eye pressure measurements taken with an “at home” device (the Proview tonometer) get to those taken with a standard device used in glaucoma specialists’ offices.
  
  **Sponsor:** Bausch & Lomb  
  **Principle Investigator:** Dr. Moster

- A study investigating if 1) the substance Healon 5 can increase a patient’s eye pressure after it has fallen to below normal levels following eye surgery and 2) when used during glaucoma surgery, its effect on a patient’s long- and short-term eye pressure.
  
  **Sponsor:** Pharmacia  
  **Principle Investigator:** Dr. Moster

- A study to see how much of the drug Lumigan stays in the eye’s fluid if Lumigan is given for 21 days prior to cataract surgery. Glaucoma patients about to undergo cataract surgery or a combined cataract/glaucoma surgery are needed.
  
  **Sponsor:** Allergan  
  **Principle Investigator:** Dr. Moster
**Special Summer Appeal for the Glaucoma Research Center**

*By Nancy Petrongolo*

As Dr. Spaeth points out in his article on the role of glaucoma patients in research: “No matter how good the research team, no research would be possible without (1) the cooperation of glaucoma patients who agree to participate in our studies as well as (2) the support of those who help us meet the high costs of performing quality research.”

This summer, the Foundation is asking folks to consider making a special, one-time, donation specifically to support the Glaucoma Research Center of Wills Eye Hospital. Funds are needed to ensure that the Center’s momentum is maintained and enhanced so that its maximum potential can be reached as quickly as possible.

The Glaucoma Research Center campaign is directed to donors who wish to support the research activities of the Glaucoma Service above and beyond their Annual Fund giving. It is vital that we continue to receive contributions to the Annual Fund to maintain and expand our patient and family support groups, community screening programs, the *Searchlight*, the Glaucoma Service website, and our training program for future glaucoma specialists.

Two return envelopes are enclosed for your convenience—one for Annual Fund gifts, and one for donations to the Glaucoma Research Center Campaign.

Thank you for your generous support. Stay tuned for news of the exciting advances your contributions are making possible.

**New Date Set for Glaucoma Conference and Celebration**

The Annual Wills Eye Hospital Glaucoma Conference and special Celebration to mark over 40 years of fellowship training on the Glaucoma Service of Wills Eye Hospital has been rescheduled for Friday and Saturday, October 3–4, 2003. Former Glaucoma Service Fellows from here and around the world, along with other distinguished glaucoma specialists, will gather in Philadelphia for the one-and-a-half-day Conference.

The Conference will be followed on Saturday evening by a special program, including a ballet commissioned for the occasion through Mr. Meredith Rainey, choreographer and principal dancer for the Pennsylvania Ballet. The cost of the ballet will be underwritten by Mr. Jack Wolgin, noted Wills Eye Hospital benefactor. Thanks to the efforts of long-time Board member Mr. Stanley Tuttleman and Foundation friend Mr. Ray Perelman, the Perelman Theater at the Kimmel Center for the Performing Arts has been reserved for the occasion.

Mrs. Bonnie Carr Long, Chair of the Steering Committee, along with Committee members Mrs. Ann Ward Spaeth, Mr. Stanley Tuttleman, Mrs. Sanna Henderer, Mrs. Tina Rhee, Dr. Laurie Katz, Mrs. Sara Rapuano, Dr. George L. Spaeth, and Mrs. Nancy Petrongolo have formed the following sub-committees, for which they are now recruiting volunteers:

- Decorations Committee
- Food Committee
- Printed Materials and Commemorative Items Committee
- Music Committee
- Public Relations Committee
- Program Committee
- Honorary Committee

If you would like more information about the event or would like to volunteer to serve on a sub-committee, please contact Foundation Managing Director Nancy Petrongolo at 215-928-3191.

*New Research Fellow, Dr. Sushma Rai (left), with Dr. Richard Wilson. Dr. Rai received her medical and ophthalmological training in her native India, where she was a practicing ophthalmologist. Moving to Canada, she spent four years at the University of British Columbia Eye Care Center as a clinical research assistant, working on a major multicenter research project studying laser treatment for neovascularization secondary to age-related macular degeneration. She worked on two publications in this area, one in the *Archives of Ophthalmology* and the other in the *American Journal of Ophthalmology*. While she was there she also worked for 6 months as a Research Fellow at the Lutheran Medical Center. Photo by Ken Parker*
Glaucoma Clinicians’ Research Projects Break New Ground

The doctors who see patients and perform surgery on the Wills Glaucoma Service also are intensively involved in glaucoma research. Because they are committed to patient care, they can do better research; because they are committed to research, they can provide better patient care. In each issue of the Searchlight, as below, we will focus on one of the studies being conducted by each of the Glaucoma Service faculty.

L. Jay Katz, MD
Medications vs Laser for Newly Diagnosed Glaucoma Patients

Usually, newly diagnosed glaucoma patients are given a variety of glaucoma medications to treat their eye disease first. Only after that approach fails will a doctor try using a laser or other surgical treatment. With this research project, which other hospitals all over the country are helping us do, we are trying to see if the usual way of treating glaucoma really is best. We will have 150 open-angle glaucoma patients try medication as a first treatment for glaucoma and another 150 have a laser procedure with the new SLT laser. Then we will see which works best. Depending on what we find, the way glaucoma is typically treated could be significantly changed.

Douglas J. Rhee, MD
Directed Gene Therapy for Glaucoma

Gene therapy can mean two different things — (1) providing a healthy copy of a mutated gene or (2) inserting a normal human gene to treat glaucoma. As of the year 2002, genetic mutations have been associated with less than 10% of all people with glaucoma. Additionally, it is not understood how these mutations actually cause glaucoma. Therefore, I am concentrating on delivering normal human genes into various cells in the eye to prevent damage from glaucoma, thereby potentially helping all people with glaucoma. Although the technology to deliver genes to many tissues in the eye has been available for over a decade, no one has yet been able to selectively target only those parts of the eye involved in glaucoma. The goals of my gene therapy project are (1) to test my novel systems to selectively deliver genes, and (2) to test various candidate genes for insertion that could be used not only to treat glaucoma, but also to help us understand what causes glaucoma. If successful, gene therapy would have the advantage of using the body to treat itself and potentially cure individuals in which a genetic defect has caused their glaucoma.

Richard Wilson, MD
Creating an Internet Network of Wills ex-Residents and ex-Fellows to Greatly Expand the Scope of Studies that Can Be Accomplished under the Direction of the Wills Glaucoma Service

Most of our patients come to the Wills Glaucoma Service on multiple medications. This makes it difficult to study the effects of any one medication in and of itself. The internet presents an opportunity to unite the vast number of Wills ex-residents and ex-fellows, who are much more likely to have patients at an earlier stage of the disease. In this project, study design and protocol, inclusion and exclusion criteria, as well as all the forms required will be made accessible on the internet. Standardized forms submitted over the internet will allow information on study patients to be collected from many offices across the country, allowing a much more effective study of medications than otherwise would be possible. And the more we know about medications used to treat glaucoma, the more effective treatment is likely to be.

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Jonathan Myers, MD
Comparing Three Different Ways of Determining Whether a Patient’s Visual Field Has Gotten Worse

Visual field analysis is the primary measure of visual function in the monitoring of glaucoma. The Visual Field Progression Study is a prospective study comparing the ability of clinicians to determine whether a patient’s visual field has gotten worse or not, using three different commonly used software sets to view the same data for a series of 40 patients. Visual field progression is an important clinical indicator of the need for more intensive therapy. The more accurately doctors can determine the extent and rate of visual field deterioration, the more effective treatment is likely to be.

Jeffrey Henderer, MD
Screening to Identify Glaucoma in the Community and to Ensure Appropriate Follow-up for Those Who Have Signs Indicating They May Have the Disease

Glaucoma tends to affect certain groups more than others. It is more common in the elderly. Persons with a family history are at a higher risk as well. African-Americans are three to four times as likely to develop the disease as whites. It also affects these individuals at an earlier age. To compound matters, African-Americans are less likely to receive care for their glaucoma. This screening program will be designed both to identify glaucoma in the community and to cover the costs of a follow-up eye exam. This new program will expand the Glaucoma Service’s current screenings, improve the system that reminds patients to have a follow-up exam, schedule patients at Wills Eye Hospital if they have no doctor, and provide for transportation and exam costs by the staff at Wills Eye Hospital.

Marlene Moster, MD
Determining How Effective a New Device Allowing Patients to Measure Their Own Intraocular Pressure Is

A new device, the Proview Eye Pressure Monitor (Bausch & Lomb Surgical), allows patients to monitor their intraocular pressure between doctor visits. This study will compare Proview readings with those using the standard office measuring device, the Goldmann tonometer. Also to be investigated is whether just being able to monitor IOP at home or at the office reduces anxieties patients might have about their glaucoma.

George L. Spaeth, MD
Using Genetic Information to Determine the Need in Certain Patients for Earlier, Aggressive Treatment with Safer, More Effective Ways to Combat Visual Loss

Some patients have a severe form of primary open-angle glaucoma which continues to deteriorate despite available treatments. Genetic mapping techniques have been used to look for markers in 189 patients who were seen for at least 10 years on the Glaucoma Service of Wills Eye Hospital. The purpose was to identify a predisposition to this severe form of glaucoma. Children, grandchildren, and future family members of patients with advanced glaucoma and those in high-risk groups stand to benefit from earlier, aggressive treatment with safer, more effective ways of combating visual loss.

Support Group Meetings
At this point, our knowledge concerning the cause of glaucoma is fairly rudimentary, and many questions concerning the mechanism of injury in glaucoma remain to be answered.

**Intraocular Pressure is not the Sole, or in Some Cases Even the Chief Factor in Producing Glaucoma Damage**

We have an abundant evidence of this:

- Abnormally high intraocular pressure is ten times more common than glaucoma damage.
- Approximately 1 out of 6 patients with glaucoma damage never has elevated intraocular pressures, even on repeated testing.
- Although women have only a slightly higher intraocular pressure than men, on average, as they age, they suffer a rate of “normal-tension” glaucoma twice that of males.
- The intraocular pressure is approximately equal in African-Americans and Caucasians, but African-Americans have three to four times the prevalence of glaucoma.
- In Japan, although the incidence of glaucoma damage increases with age at about the same rate as it does in America or Europe, the intraocular pressure diminishes with advancing age.

- One study showed the presence and progression of glaucoma damage was only weakly related to the level of intraocular pressure.
- Patients with advanced glaucoma tend to slowly worsen no matter what interventions are applied unless the intraocular pressure is reduced to the single digits.

Clearly, something more than elevated intraocular pressure is required to cause glaucoma damage.

**Blood Flow is also a Major Risk Factor for Glaucoma**

There is abundant evidence that blood flow is the second major risk factor in glaucoma after elevated intraocular pressure. This evidence includes:

- The fact that intraocular pressure is only slightly related to the level of systemic blood pressure. High blood pressure, hypertension, seems to be protective against glaucoma damage in young patients but is a risk factor in older patients.
- The fact that “perfusion pressure,” the pressure pushing blood through an organ, in this case the eye, is the best predictor for looking at the risk of developing glaucoma. When the perfusion pressure as evidenced by the diastolic blood pressure (the lower number) is on the low side, the risk of developing glaucoma is six times higher than normal.

The strong association between glaucoma damage and low blood pressure. The majority of individuals, healthy or otherwise, have a drop in their blood pressure during sleep, especially in the midnight to 3:00 a.m. time interval. Glaucoma patients with the greatest blood pressure dips at night show an increased risk of progressive visual field loss.

Other studies have shown that a drop in blood pressure during the night will reduce blood flow through the small arteries that supply the optic nerve. Twenty-four-hour blood pressure monitoring with an ambulatory monitor may well reveal large dips in systemic blood pressure. Patients who may have blood pressures of 175/134 in the afternoon can be down to 92/44 in the early morning hours. Such a drop seriously weakens the resistance of the optic nerve to glaucoma damage.

- Arteriosclerosis, or hardening of the arterial vessel walls, seems to be a much less significant risk factor for glaucoma. One study has shown that it increases the sensitivity of the patient to intraocular pressure but there is little evidence in the literature that arteriosclerosis is a major risk factor for glaucomatous damage.

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Autoregulation is the ability of an organ to regulate its own blood supply to meet its functional needs. Abnormal spasms or narrowing of the vessel going to an organ is one form of defective autoregulation. Spasms in vessels leading to an organ would abnormally limit the supply of blood to the organ. This would be especially damaging if the vasospasm occurred at a time of increased use and requirement for oxygen and nutrients. Vasospasm would be one type of disregulation. Another type of disregulation would be if the vessels going to an organ like the eye did not dilate at a time when the organ was quite active and had increased requirements for oxygen and nutrients.

- There is a large body of research that links vascular disregulation to glaucoma damage. Nocturnal dips in blood pressure are associated with reductions in the velocity of blood going into the eye in glaucoma patients but not in normal controls. This suggests that glaucoma patients suffer from vascular disregulation at night.

- Patients with “normal-tension” glaucoma have a much increased rate of migraine headaches compared to the normal population. Migraines represent a spasm of vessels in the brain. There seems to be an extension of these spasms to the vessels supplying blood flow to the eye. Breathing carbon dioxide can improve the visual fields of some patients by theoretically counteracting vasospasm and will normalize blood flow to the optic nerve. This suggests that the vascular defects causing glaucoma damage may be reversible.

- On the other hand, patients with narrowing of the carotid artery leading to the front half of the head and, therefore, the eye have low perfusion pressure to the eye but do not seem to have an increased risk of glaucoma. Also the majority of patients with vaso- spas tic disease do not develop glaucoma.

These findings suggest that risk factors beyond vasospasm must be necessary to produce glaucoma damage. For example, someone with vasospasm may also need to have nocturnal hypotension in order to develop glaucoma damage, or someone with carotid stenosis may also need elevated intraocular pressure to develop glaucoma. The combination of two or more risk factors would dramatically increase the chance for glaucoma damage.

Conclusion
I have included here only some of the more basic findings suggesting a strong link between blood flow to the optic nerve and glaucoma damage. This new knowledge clearly advances our understanding of the causes of glaucoma. Still, as is so often the case in scientific investigation, the more we discover, the more we realize remains to be learned. The more we learn about the causes of glaucoma, here at our own Glaucoma Research Center and around the world, the better we glaucoma specialists will be able to help glaucoma patients everywhere.

Chat Support Group
www.wills-glaucoma.org
Wednesdays, 8:30–9:30 pm
hosted by a Wills glaucoma specialist
Mondays, 8:00–9:30 pm
patient and family members only
Tips For Glaucoma Patients From Glaucoma Patients

Radio Shack Dual-Memory Timer/Clock

Dr. Katz’s patient, Ms. Flora Grossman, recommends this little gadget as an aid in taking glaucoma medications. One timer can be set to remind you that it is time to take your medication. The other timer can be used to time the interval between taking two different drops or the couple of minutes or so needed for punctal occlusion (closing the eye while putting pressure on the inner corner of the eye against the nose; this will close the tear duct and both maximize the drops’ absorption into the eye and minimize their absorption into the rest of the body). The Radio Shack Dual-Memory Timer/Clock (catalog number 63-899) is available from Radio Shack stores for $16.99.

Eye Drop Delivery Aid

Dr. Henderer’s patient, Edna M. Harris, reports that Upsher-Smith Laboratories’ “Eye Drop Delivery Aid” is making putting her eye drops in “quite easy and effortless.” She explained, “I sit in a rocking chair, tilt my head back and squeeze the Aid. The drop falls right into the eye; no mirror is needed.” According to the manufacturer, “The Eye Drop Delivery Aid fits securely and comfortably around your eye and helps your hand squeeze the bottle.” The Aid, which costs about $10, can be ordered by your pharmacy if they do not have it in stock.

New Board Members Announced

Three new members joined the Glaucoma Service Foundation Board at the May 13th semi-annual Board meeting. Mr. Hyman Lovitz has been in general private practice for 40 years, having founded the law firm of Lovitz and Gold, P.C., specializing in employment and discrimination law. He is a member of the Board of Managers of the Associated Alumni of Central High School of Philadelphia as well as past President of the organization. Other new Board members announced at the meeting include Judge Phyllis Beck, Associate Judge of the Superior Court of Pennsylvania, and active in many community organizations, including the Free Library of Philadelphia and the Independence Foundation, and Mr. Thomas Henderer (photo not available), father of Glaucoma Service staff physician Dr. Jeffrey Henderer, a lawyer specializing in estate planning, wills and trusts for Wilmington Trust in Wilmington, Delaware.

View from the Glaucoma Service patient waiting area on the 11th floor of the new Wills Eye Hospital. The “old” Wills can be seen on the left at the corner of 9th and Walnut Sts. The Glaucoma Service occupies the entire floor, with the Foundation office at one end, facing Walnut Street, examination rooms in the center, and the Glaucoma Research Center at the opposite end.

Photo by Ken Parker
Role of Glaucoma Patients
(Continued from Page 4)

(3) Additionally, it may be important for the research participant to know that he or she is helping to discover new knowledge which may be of direct benefit to him or her and should be a benefit to others in the future.

Patients should be very clear in their mind that they truly want to participate in a research trial before they agree to participate. One of the most discouraging aspects of research from the investigator’s point of view is to have patients drop out of a study. When that occurs it makes interpretation of the results of the study extremely difficult, or even impossible. Did the people who dropped out stop because they were having side effects? Did they drop out because they felt cured of the basic problem and thought it was a waste of their time to continue?

If a person drops out of a study because he is having side effects, the final results would be falsely good, because this patient, who was not doing so well in the study, dropped out of the study and therefore his poor results were not tabulated in the final analysis. If a person drops out of a study because he believes he is cured, the conclusion would be similarly incorrect, but in the other direction; that is, if he dropped out because he felt cured, the truly beneficial effect of the treatment would not be apparent in the final tabulation of the results.

If your doctor tells you that you are eligible to participate in a study, carefully consider the advantages and disadvantages. If you feel it is right for you, that is a happy solution for everyone. However, if you do not feel comfortable agreeing to participate, it is equally important for the sake of the well-being of the study that you let your doctor know your feelings.