

Bradley Straatsma Interview
April 20th 2005
Conducted by Edward McManus

Mr. McManus: This is April 20th with Dr. Straatsma, continuing oral histories of the NEI.

Dr. Straatsma: Would you like short or long answers?

Mr. McManus: It doesn't matter.

Dr. Straatsma: Okay.

Mr. McManus: I talked to Dave Weeks and to Herb Kaufman, you and Herb were the original testifiers?

Dr. Straatsma: There was a group of people, I checked and I think I'm aware of the people who did that testimony.

Mr. McManus: Right.

Dr. Straatsma: Herb was definitely present.

Mr. McManus: Yes. There were some who didn't testify and you may or may not want to talk about that. Some were world leaders in the community and some people for their own reasons didn't want to be part of the testimony. Do you recall when you first heard about the creation of the new National Eye Institute and who brought it to your attention?

Dr. Straatsma: My early recollections will be somewhat biased from my long and close association with Dr. Jules Stein, because he was absolutely pivotal and central to the development of a National Eye Institute in the United States. Jules returned his interest to ophthalmology in about 1959 and by 1960 he had founded Research to Prevent Blindness (RPB) and served as Chairman of the Board of that organization from its foundation until his death many years later. Very early in the history of RPB or Research to Prevent Blindness, Jules recognized that ophthalmology was not a prominent part of the medical scene in the United States and he set out to bring proper attention to the need for work in ophthalmology, more research in ophthalmology and measures to prevent eye disease and blindness. I'm sure that he began thinking about the way to do this through the federal government in about 1962 or '63. He had started the National Science Writers Symposium in about 1963. The purpose of this was to interest science writers in featuring eye disease as well as other kinds of disease affecting the American public. He had arranged for Dr. Thomas Duane to do a survey of ophthalmology departments, ophthalmology divisions, ophthalmic research in the United States I recall being part of that survey. The first publication, which came out from RPB, authored by Dr. Thomas Duane appeared in 1965. Some time in that interval between 1962 and 1965 I realized that Dr. Stein was thinking about a greater role for ophthalmology and vision research in

the National Institutes of Health. The first step was to add the word 'Blindness' to the National Institute of Neurological Diseases. I recall being involved in several of the advisory committees for what was then known as the National Institute of Neurological Diseases *and* Blindness. I always thought that was an unfortunate name. It was almost like saying we were going to establish a National Cancer Institute and death. Because blindness is equivalent to death in our field of ophthalmology and it did focus attention on an unfavorable outcome of eye disease rather than a balanced approach to eye disease and vision research. A minor point though, and various efforts to increase the prominence of ophthalmology led to a certain amount of money being allocated for vision research in the appropriation for the National Institute of Neurological Diseases and Blindness. Concurrent with that effort to improve the funding for vision research and the National Institute of Neurological Diseases and Blindness, RPB began to work, particularly with the leadership of Mr. David Weeks, and actually wrote a Bill to establish the National Eye Institute around 1966. This Bill never got out of Committee, but it was a Bill that was strongly supported and endorsed by Dr. Jules Stein and the directors of RPB. They realized the need for a broader constituency to get legislation passed in the United States. For that reason, when the Association of the University Professors of Ophthalmology (AUPO) was established by Dr. Edward Maumenee, Dr. Frank Newell and, I believe, Dr. Irvin G. Leopold, this organization promptly endorsed the concept of a National Eye Institute. Other organizations such as the American Academy of Ophthalmology and ARVO also supported that and suddenly there was a ground-swell of public support from the ophthalmic community for a National Eye Institute.

I recall one episode in which I played a small role in building support for the National Eye Institute. I arranged to be a speaker at the American Foundation of the Blind and recall very vividly sometime around 1966 or 1967 when I walked into a large auditorium at the Sheraton Hotel in Los Angeles. Among the four or five hundred people I was probably the only person with normal vision. I gave my presentation in support of the National Eye Institute and asked for the endorsement of the American Foundation of the Blind. At the end of my presentation, the Chairman, who was the Executive Director of the Organization, asked if I would accept a few questions. The first question was someone in the front row who stood up and very loudly asked, "Would this new institute help ophthalmologists to learn from their surgical failures?" I recall being absolutely surprised by that question but my response was, "I appreciate a candid question." With that, the room burst into applause and laughter and the tension was broken. I went on to explain that yes, we did have failures and we wanted to do better and we wanted their support. The reason I think that's an important anecdote is that when we ultimately testified before Congress several years later, the ophthalmologists and Dr. Jules Stein finished the testimony. We stepped down and the Congressional committee's next group to be brought before them was the American Foundation of the Blind. The people who I had spoken with in Los Angeles at the Sheraton Hotel warmly endorsed founding the National Eye institute. To this day, I feel that their testimony was much more important than anything that ophthalmologists could say. They were speaking really truly from the

heart and soul and impressed the members of Congress enormously. While I've digressed a bit, I think the question was early recollections of the National Eye institute.

Mr. McManus: And you did, you're going right along with the way that I'd hoped. I will digress a little. I've already kind of drafted the Beginnings Chapter. I did look at Newell's history and Newell talks about that same incident. He talks about the testimony and I bring that up. But now I have the other side. And Newell says that everybody was really waiting, they didn't know what this guy was going to say. And when it came up very positive, now I...so this is very nice. Go ahead.

Dr. Straatsma: Between the time that the first Bill didn't get out of committee in Congress and the time in 1968 when through Congress and the National Eye institute was formally approved by Congress, there were many steps to bring about the broad coalition of support for the legislation. During this time, Dr. Jules Stein made any number of personal contacts and communications with members of Congress. Basically, making every effort to persuade them that this was in the best interest of the American people. I do think that his role as advocate for the National Eye institute was absolutely critical to the passage of that legislation in Congress and later the signing of that legislation by President Lyndon Johnson on August 14, 1968.

Mr. McManus: That was an important point. One of the holes that I had in The Beginnings, chapter was referring back to Newell who said that Stein, and a Texan traveled down to the Johnson Ranch to get the President to sign it. Well, Dave Weeks says that it wasn't a Texan it was the head of the democratic, party of New York.

Dr. Straatsma: I don't know who was with Dr. Stein, I do know that he went to Texas and talked with Lyndon Johnson. The actual signing took place in Washington some few days later. That was just another way of indicating his personal involvement in and commitment to this legislation becoming law in the United States.

Testimony in front of Congress is always a formidable, I would even say awesome, occasion. Even when a person is accustomed to speaking in public and in front of various sized audiences, speaking before a small committee of Congress puts a new dimension onto the scope and seriousness of the discussion. I do remember that the testimony was during the 90th Congress. It was before the Interstate Commerce Committee, and the people who I recall as involved in that testimony were Dr. Jules Stein, Dr. Edward Maumenee, Dr. Thomas Duane, Dr. Frank Newell, Dr. David Cogan, Dr. Michael Hogan, Dr. Herbert Kaufman, and Dr. Bradley Straatsma.

Mr. McManus: Certainly, as you said, Dr. Stein used a lot of personal contacts and he highlighted it with the Texas trip David said, I spent four months down on Capitol Hill. Every week, I went back and his wife, Betty, was with him and she was nodding.

Dr. Straatsma: In my comments, I focused on Dr. Stein quite accurately, but I would also like to focus in a very commendable way on David Weeks. He certainly was the individual charged by

Jules to do much of the planning and completion of the project and I think he deserves enormous credit for that.

Mr. McManus: The early groups—you talked a little bit about them—the AUPO and different groups that came together, usually with Ed Maumenee staying somewhere around stirring the pot, do you have anything more to say about them?

Dr. Straatsma: The one that I can comment on most specifically was the Association of University Professors of Ophthalmology (AUPO). This was a brand new organization at the time they took this position. It has since grown to be an extremely important organization representing academic departments and their special needs in terms of training and educational resources. One of their very first actions was to enthusiastically endorse the National Eye Institute. Because this group was made up of department chairs and people who were responsible for research programs in their own institutions, they could come to an immediate agreement on this. I'm sure that other groups were surprised by the scope of this very bold approach until it was fully discussed and explained.

Mr. McManus: Well, I talked to Bernie Becker. I wonder if you had known about this. He was on the Council, the Neurology Council, and Jim Shannon called him in and offered him the job as the head of the division of eye research. Did you?

Dr. Straatsma: I had no knowledge of that series of events. I was not involved at the NIH at that level. I was a member of several committees but not on the Council of the Neurological Diseases and Blindness Institute.

Mr. McManus: Bernie enjoyed telling me this of course. He turned it down mainly because he had his roots in St. Louis—I think you well know about that but it didn't, didn't want to go on. But I raised my estimation, which is already pretty high, of Jim Shannon because I thought that was a pretty brilliant move and may have derailed thing. My next question was about conversations with Jules Stein. Getting on past the beginnings of the institute, we had to have a first director and there were lots of players in that one. Do you have any discussions about that?

Dr. Straatsma: I certainly had a number of discussions but made absolutely no attempt to influence the process or to enter the process. I had what I felt was a very exciting opportunity at UCLA and had no interest in being a candidate for the position. I felt that the importance was to have some individual representing vision science in the best possible way. Frankly, I had a great deal of enthusiasm when I found that Dr. Carl Kupfer was selected as the first Director of the National Eye institute. I think it was a very public-spirited decision on his part to accept that position when he had a very favorable academic community in which was working at Seattle, Washington, at that time.

Mr. McManus: Herb Kaufman talked to him. He was at the NIH at the time that this was going on. And this is something that I never knew. And again, it raises Shannon in my estimation.

Shannon called him in and he was just a junior, two-year commission corps guy and quizzed him about possible candidates for this Director position, which was a smart thing to do because Shannon didn't have lots of contacts in the ophthalmic world. You were on the National Advisory Eye Council. Was the first term back in the early 70s?

Dr. Straatsma: The first term in which I had the opportunity to serve on the National Advisory Eye Council occurred in the years 1972-1976.

Mr. McManus: So you were on the Council before I came. Because I came in '73. That's interesting. And I know that you were the Chairman of the Planning Committee and we'll do a chapter on strategic planning. Do you recall your experiences as the head of that Planning Committee and anything you want to say about the Council?

Dr. Straatsma: It is a real privilege to serve on the National Advisory Eye Council, yet it provides an overview that is not possible to obtain any other way. The meetings of the Council always seemed perfunctory and many of the actions were really already basically determined by the action of the very competent staff members of the National Eye institute and the committees of consultants that really made 98-99% of the decisions. There were though, several minor policy items that became important as the Institute advanced and in those matters, Council played a very important role.

Mr. McManus: In the early 70s there was a change in the training guidelines. Do you recall any of that?

Dr. Straatsma: I recall that the institutes were being forced away from emphasis on training and required to focus simply on research and I thought that that was not appropriate because the goal of the National Eye institute was to improve the eye health of the American people and this required excellent training and excellent skill among the cadre of ophthalmologists in this country. And if we were focusing just on research, we would not have an adequate number or quality of people to translate the research into the care of patients. So I was very strongly an advocate of training and to this day I still am.

Mr. McManus: In your role as Chairman of the first Council Program Planning Committee, that was quite a new and different approach by medical research. Do you have any questions about that challenge?

Dr. Straatsma: I was hoping I'd get a chance to speak about that because that is one of the really important functions of the Council. It started in 1973 near beginning of the term on the Council. The origin was a report by Dr. Kupfer as Director of the National Eye Institute. He had reported on a staff conference that had taken place. In this conference, the staff members of the National Eye institute had begun looking critically at the kind of work that was being supported, the balance of programs in various areas of ophthalmic disease, the possibility that some programs were duplicating each other, and the need to be sure that areas of importance in the future were not being neglected inadvertently. As soon as

the report was made by Dr. Kupfer to the Council, the Council acted to establish a Program Planning Committee. I was fortunate in being asked to be the Chair of that Committee, and served in that capacity from 1973 until completion of the first published National Vision Program Planning Report in 1975.

Mr. McManus: I'm glad to see that somebody besides me who remembers that staff conference which I read.

Dr. Straatsma: I didn't know you read it.

Mr. McManus: That was my first real function.

Dr. Straatsma: I did not know that Ed, I'm pleased to know that.

Mr. McManus: Yeah. And a lot of that was my stuff. And everybody seems to have lost it.

Dr. Straatsma: No, it's where it started.

Mr. McManus: I talk a little bit about some of the problems with the basic scientists and trying to get them to do Program Planning. What are your comments about that?

Dr. Straatsma: It was a new activity and there was substantial doubt about how we should go about it. Whether this would become something that directed and forced people to do certain kinds of studies and thus interfered with the freedom of intellectual activity. There was great uncertainty in my mind about how we should go about doing this. The precedence for planning in science and research had been well established by the *Manhattan Project*, by NASA, and by corporate activity. There was no real doubt about the need to do Program Planning, the question was how to go about doing it. The first important consideration was to accept five basic categories that I believe initiated with the staff conference of the National Eye Institute. These areas of vision research were not surprisingly retinal and choroidal diseases, corneal diseases, cataract, glaucoma and sensory and motor disorders of vision. Working with those as broad areas that had much overlap and interconnection, the important step was to establish a constituency in the planning process that was broadly representative of the vision science community. A committee was appointed and consultants were then appointed in each of these five special areas. This put in place a very broad constituency to begin the process of program planning. We agreed that the planning process should begin with a very careful analysis of what research was currently being supported by the Eye Institute. What were the titles of the projects? What were the topics of the research? What was the amount of funding? What was the duration of grant support for each of these projects and for the individual program areas. The second thing that was done was to ask the consultants to look critically at the area of expertise and decide what could or should be done. In other words, not what was being done but what the opportunities were for the future. But that was a very exciting process because it brought people with knowledge and expertise together and for the first time, to my

knowledge, asked them to simply brainstorm and say what would they like to see accomplished without for the moment saying that they wanted to do it or that they thought somebody else should do it? It was just to advance the national agenda this kind of work should be done. The third part of the Program Planning was a very practical part. And it was to simply to estimate the amount of funds required, to implement the recommendations that came forth from each of the five areas of Program Planning. This became very important because in the practical world this was the material that the Institute Director, Dr. Kupfer could use when appearing before Congressional Committees each year requesting appropriate support for the National Eye institute. There is no question in my mind that the planning process was valid in terms of its preservation of freedom for the investigators, its ability to focus the attention of the community as a whole on the areas that needed to be studied. And most of all, its practical and political importance in bringing about the resources to accomplish the task. For the record, I'd like to put on the comments I'm making, just the names of the people who were on that first vision research committee.

Mr. McManus: That would be great, I have that as an appendix already. But go ahead and state them.

Dr. Straatsma: I'm pleased to know Ed, that you've already got that. I'm just going to read the list that's in the publication: Chairman, Bradley R. Straatsma; Monsier F. Armalee, MD; V. Everett Kinsey, PhD; Alan M. Laties, MD; Vernon B. Mountcastle, MD; and Carl Kupfer, MD.

Mr. McManus: You were Chairman of the NEHEP Advisory Committee also. I have quite frankly forgotten that. Herb Kaufman said, when we were talking the other day, this is like discussing World War II (laughter) not that there was a lot of that but there were battles. Would you like to comment a bit about you and NEHEP?

Dr. Straatsma: My recollections of NEHEP go back to the time that I was on the Council for a second term from 1985-1989. Near the end of that term, as I recall the action of Congress encouraged the formation of an educational program for the public at the National Eye institute and a certain sum of money was actually allocated or suggested for that particular program. The concept of education of the public to bring about earlier detection of disease and more effective treatment was very warmly supported and endorsed by Dr. Kupfer. As a result, the National Advisory Eye Council established a National Eye Health Education Program Committee. I had the privilege of serving as Chairman of that committee from 1989-1992.

Mr. McManus: Was that charge of eye health education generally accepted in the community?

Dr. Straatsma: There was a lot of negative feeling about that when it first came to the attention of a number of people. The mission of the Eye institute had always been considered very closely aligned to research and many thought that getting the Eye Institute into areas of public education was going to be counter productive. They were concerned about government control and they were concerned about interference of the many activities of

many organizations that were already involved in this area. There was great concern about the ability of the National Eye Institute to do this task well. So there was a large element of skepticism and that was apparent not only at the very beginning but during the first few years of the project.

I think the response of the Eye Institute was extremely appropriate. The first thing that was done was to recognize that education is within the purview of many agencies and many organizations. Rather than try to dominate it the National Eye institute developed a program that tried to coordinate it so that the activities of each group built on the work of the other groups. There was a NEHEP partnership which began in the early year of 1989 with about 35 organizations. These organizations represented government entities, professional organizations, private organizations related to a disease or an age group or some other aspect of the health problem. And it also included civic entities and political organizations. There was no attempt to assign importance to one or lesser importance to another. This was an equal coalition and every member of the group had a chance to speak up and be heard. I think that was very important because the groups differed enormously in size, and in scope in purpose and in many other features.

The second decision that was important was to focus. The NEHEP program decided that it would focus on educating the public in a few select areas where a larger amount of impaired vision was taking place and where education could make a difference in improving the eye care of the affected people. That led to a focus on diabetic eye disease, glaucoma, and vision impairment—commonly called low vision—because in each of those areas a large number of people were adversely affected. In each of those areas proper screening, early diagnosis, and proper treatment can have a very favorable impact on the affected individuals.

Mr. McManus: It's interesting to me to see that as the NEI grew, it seemed that ophthalmology grew. I don't know if there's any cause and effect or whether eye concerns generally were going to move in an expanded direction. What impact do you think that the NEI had on the growth and directions of ophthalmology in the US and, probably more importantly, in the world?

Dr. Straatsma: I haven't really thought about that. But it doesn't take any amount of thinking to give a good answer. Ophthalmology was able to develop in large measure because of the emphasis on vision science research that was brought about for the National Eye institute. So the answer to your question is yes, ophthalmology has had an opportunity to develop and the National Eye Institute has been extremely important in making that possible and in bringing that about.

Mr. McManus: You know why I asked that international question, I couldn't help but think of the Russian ophthalmologist who came over here, Dr. Krasnov. He visited you here?

Dr. Straatsma: We had the good fortune of having a visit by M. M. Krasnov, who to this day is a very good friend and someone I respect very much. We toured the Jules Stein Eye Institute and while he was here, he received a message from his government stating that the Russian Ambassador to Mexico, a very prominent individual in the diplomatic corps, had a serious eye problem, had an eye operation in Mexico and was not doing well. Would Professor Krasnov examine the patient at UCLA and give his recommendations? This very fine gentleman, who was the Russian Ambassador to Mexico, came to the Eye Institute. I provided an opportunity for Dr. Krasnov to examine him and he was kind enough to invite me to examine the patient as well. Clearly, he had a retinal detachment which required surgery and needed care promptly. We both felt it was in his best interest, as a Russian national, to return to Moscow to the Institute of Professor Krasnov to receive care. About an hour after our consultation and the Ambassador left, he came back. He came back and said he would like to have his eye care at the Jules Stein Eye Institute. He then said, do you accept me or do you refuse me? I thought to myself under no circumstances are we going to refuse to care for someone who needs care regardless of what the other aspects of the situation might be. So, my answer was we accept you. This gentleman had his operation about 24 hours later. In that 24-hour period, I invited Professor Krasnov to operate with me. We arranged for him to get a temporary license from the Medical Board of California. We arranged for him to get temporary medical staff privileges at the UCLA Hospital. When he asked me why we were doing these things, I said we are a nation of law. Fortunately, the operation was successful I might say the surgery was done by Dr. Krasnov and by Dr. Allen Kreiger and by me. Dr. Allen Kreiger, a professor in our department is one of the best surgeons I've ever seen in the operating room anywhere. I give him great credit for participating in that surgery and bringing about the successful outcome that we together were able to achieve. Before the Ambassador left there was this absolutely magnificent party at his hotel suite. I can't think of an evening that I enjoyed more than seeing a gentleman who had understood the importance of vision, obtained a good result and expressed his warm support for the care he'd received.

Mr. McManus: Yeah, I think it was extraordinary and of course this was followed by the Russian government and the US government. I wanted to bring that anecdote out. It probably won't go in the book but as people are looking at this, Krasnov was here because there was a collaboration between NEI and his institute in Moscow. Those collaborations in research between the NIH and the different aspects of society, I am convinced had a big impact. This is just one more example. But it was great of you to take those risks. What do you consider to be some of the greatest research achievements at the NEI?

Dr. Straatsma: It's like asking a Nobel Laureate to describe the most important experiment. The reason I say that is because there have been many successes and they've all been important. The one that I think is still the most important group of studies conducted by the National Eye Institute relates to diabetic retinopathy. I recall being on Council when these were first coming up for approval. There was a short delay while some additional information was being obtained and when it came back to Council after some minor revisions, the

investigators had added this new device called a laser to the original protocol which was for Xenon Arc photocoagulation. The revised study for proliferative diabetic retinopathy was the first major controlled randomized clinical trial for diabetic eye disease. The protocol included both Xenon Arc photocoagulation and laser photocoagulation. It turned out that the most enduring form of photocoagulation was the laser. Both were effective but there were fewer side effects and less destructive damage as a result of laser photocoagulation. In that instance, a brief delay to allow technology to bring a new method in to the protocol was advantageous. The total effect was to change the outlook for people with proliferative retinopathy from one with likelihood of progression to blindness to one where more than 90% of these people have useful vision for the balance of a lifetime. An extraordinary achievement in terms of medical advance and in terms of human society. I would say that we have to judge this project in terms of preserved vision but there were economic advantages because a large number of people could remain productive in society and there were enormous humanistic values in terms of people who could relate to their family and continue to be fully effective and their life expectations.

Dr. Straatsma: I'd also put on another achievement. The perseverance of the NEI in supporting the collaborative ocular melanoma study should clearly be put on the record. Without that we would still be in doubt about whether it was better to treat the eye and permit it to remain in place or simply surgically remove the eye. It took tremendous courage—first for the investigators to carry out the project and second for the National Eye Institute—to support it to the point where we can now say conclusively that in the study period of ten years following completion of treatment there is no difference in morality radioactive following plaque therapy versus enucleation of the eye for a medium-sized melanoma. An enormous accomplishment that could never have been done with any mechanism other than NEI support.

Mr. McManus: I think your leadership and Carl's was what put that over, and helped other people like Stuart and others. Is there anything else you'd like to add that I missed in my questions?

Dr. Straatsma: I think there may be one other area. Are you going to try to look at what you think is ahead?

Mr. McManus: Since you mentioned that I'm going to talk to Carl about it so go ahead.

Dr. Straatsma: I think it's important to look at where we are and where we need to go. No one can predict the future with any accuracy. I think that the advances in ophthalmic science and in the care of patients are going to come about, in part, because of the applications of molecular biology, and I include immunology in that, the advances of technology and I include physics in that; and a more precise utilization of demography. Those three things are going to be very important. Demography not only in broad numbers of people in the country and different age groups but recognition that each individual is different.

Mr. McManus: There's no doubt in my mind that care of individuals should be strictly based on what is best for that person and that is going to require a very great deal of putting together of all the things we know about a disease, all the things we can do for it and what's best for that individual patient. I think another area that's going to contribute enormously and deserves more attention than it is receiving is information management.

Dr. Straatsma: The reason that's important is because we already have an enormous amount of information. We need a better method of accessing this and utilizing it first in the care of an individual patient and then in the planning of a significant scientific study. In both clinical and research areas, I believe information management needs to be very much advanced. If there's a fifth area where the National Eye Institute should put attention, it would be strengthening interdisciplinary communication and collaboration. Each aspect of medicine and biologic science is getting so complex and so highly differentiated that it is not reasonable to think someone's going to master several areas. What is important is to find a way to get those different areas to be looking in communicating and working together. I would say that a future eye institute should pay attention to they'd be molecular biology, technology, demography, information management and interdisciplinary collaboration.

Mr. McManus: Thanks Brad.

End of Interview