

## **Interview with Mr. Edward McManus and Dr. Carl Kupfer**

**Interviewee: Dr. Berlage**

**Saturday October 15, 2005**

- Dr. Berlage: Okay, these questions have to do with the Beginnings Chapter and Ed in the early part of your chapter you have a little paragraph on the early history of government supported eye research and you talk about the Tacoma studies. Are either of you familiar with any other government supported studies on eye research that were going on pre-NINDB time period?
- Dr. Kupfer: This was before 1950.
- Dr. Berlage: Yes, off the top of your head.
- Mr. McManus: There had to be some scientists supported at the NIH but off the top of my head no—before 1950. That’s when NINDB came into—in 1950 I think.
- Dr. Kupfer: And the Cancer Institute was founded in 1948. [Note: NCI established 1937/38]
- Mr. McManus: Yes, so there probably wasn’t much.
- Dr. Kupfer: We could give some thought to that but I don’t think there was.
- Mr. McManus: We could look at Dwayne (?) also.
- Dr. Kupfer: Yes, right, right.
- Dr. Berlage: Okay. All right. Let’s talk about advocacy groups. I got the impression your were Chapter you were saying that the big shift in the creation of the institutes was the early institutes, the momentum, the impetus really came from the public health service people, government people, but it was with Lasker and NINDB that things really shifted and the momentum is really coming from advocacy groups. Is that accurate?
- Mr. McManus: Yes, and that’s where I read the history part. And even Mary Lasker or the National Cancer Institute (NCI) was somewhat tied in to other people in public health services. The surgeon general who wanted to do this but definitely with the NEI it was the outside group and the government people didn’t want anything to do with it. In fact, I quote them.
- Dr. Kupfer: That’s right.
- Dr. Berlage: So you’re saying with the NCI also advocacy groups were important or not?
- Mr. McManus: No, very important. And last...

Dr. Berlage: See, I think we should talk more about that because that doesn't come up that much in your chapter.

Dr. Kupfer: As far as I'm concerned and I said this of Jules Stein. He's the father of the National Eye Institute. He used the—whatever you want to call it—the political capitol or whatever to influence Congressmen and finally to influence the President and you must have written this up already.

Dr. Berlage: Yes, you did mention that, yeah.

Mr. McManus: Yes, I thought I did. I did but you know when describing how it happened, I might not have said how important it was, so when we look at the beginnings...

Dr. Kupfer: I mean that was critical.

Dr. Berlage: That was through the RPB? Right?

Mr. McManus: Yes. Yes. That was an advocacy group.

Dr. Kupfer: And you remember they drove out to Lyndon Johnson.

Mr. McManus: See, I might not have described RPB as an advocacy group. I might have described them like the Juvenile Diabetes—you know as an association or a foundation.

Dr. Kupfer: But they mobilized all the academic professors of ophthalmology and...

Dr. Berlage: That was exactly the question I was going to ask you because you talk about RPB a bit. You talk about the prologue, you're talking about academics in some—in another chapter you say how important it was that academics were supported. But I wasn't quite sure how do we plan—are the academics and advocacy groups, how did they get mobilized and what their attitudes were toward the NEI, that wasn't very clear, academics as a whole and how important they were in the creation.

Dr. Kupfer: RPB was the major impetus.

Mr. McManus: Right, working with Maumenee and then he created the AUPO and all these things started. We just have to look and see that that's said. You know a lot of times when you're writing these things you know it and maybe you need to see it.

Dr. Berlage: Yeah.

Dr. Kupfer: That's right. But the AUPO was very important, that's the Association of the University of Professors in Ophthalmology and then they were...

Mr. McManus: All the Department Heads.

Dr. Kupfer: They were supported, they were given thumbs-up by RPB to support the legislation to create the National Eye Institute.

Dr. Berlage: So why, what did the academic professors see that they would get out of NEI. Why did they support it?

Dr. Kupfer: Well, they wanted to get more money.

Dr. Berlage: For...research?

Dr. Kupfer: Well, (laughter)—good question. The thing that was most enjoyable about the period before the creation of the National Eye Institute was the fact that Neurology was very concerned about vision splitting off. So they did a lot of things that made it very sweet for departments of ophthalmology. They gave very elegant training grants with money to invite professors, money to have meetings, money to entertain, and this was very attractive because it was very hard to have support in a medical institution for ophthalmology. The Deans supported medicine, surgery, pediatrics, obstetrics, and neuropsychiatry and that was it. So all the heads of departments could think of was gee, we're doing well now and with our own institute we could even do better. Not realizing that the whole purpose of this was to develop a research organization.

Mr. McManus: And in fact is that there is a section in there where I kind of question, I say some of that and want to see how well I said it. But then I say, you know, there was a lot going on but they didn't think it was enough. But like Carl said what they thought was if it's this much how about what we really could get. And these were selected departments also. These were the top, so there was a lot, maybe six or seven departments were getting money and at that point in time there were maybe 50 divisions and departments, you know. And so a lot of these other guys figured that they could get it. But were still, there were still—and we'll look at it, we'll read it. There were still kind of a..., it wasn't completely rational their feelings that they were put down. You never can explain it. It's just the human condition that the grass is always greener on the other side. They didn't have an institute but they had this sense that it could be a lot bigger, an important fact. They might have been getting \$20 million dollars a year in 1968 to Departments of Ophthalmology and Vision scientists, whereas in they ended up getting about \$250 million dollars. So Carl was saying they were pretty well—especially the good departments--were pretty well funded and the good investigators, but there was a whole revolution that was about to come where they would be 20 times bigger.

Dr. Berlage: That's good. Revolution's good. And also the money they were getting from NINDB the ophthalmologists who were allowed to do clinical training and not just research training.

Dr. Kupfer: I mentioned that the staff of the NINDB would come to the investigator and say is there anything you need more money for? And that's incredible. They started a new program Outpatient Clinical Research Programs and no other specialty had that. This was just for ophthalmology. Just to throw more money into the departments. I figured maybe 10 of the departments would qualify so it cost them a million dollars.

Dr. Berlage: And I think you just said that they supported NEI without fully realizing that it was going to all be about research. Is that right?

Dr. Kupfer: That's correct. That's correct, they really didn't understand.

Dr. Berlage: And that ended up just being a boom then also right? Or not, once they realized it would all be about research.

Dr. Kupfer: Well, a whole new generation of heads of departments of ophthalmology came in when the NEI was created. Because to compete...

Mr. McManus: At the NIH that year...

Dr. Kupfer: Along with Kupfer and McManus in charge it was more difficult.

Mr. McManus: And in the NIH, in the real NIH where you weren't just trying to buy off a group. I mean there was always enough room at NIH to do some things to buy off a group but when you get really serious and go and have a full fledged institute, I mean you had to compete with the peers of NIH. And people would look at—I mean we had, you can get into the arcane stuff but we had an initial review group that looked at our grants called a study section. And when Varmus came on even 20 years later after all of this he looked at that and said hey, you guys have got it made because you get your own captive group. He didn't want them to have that. He wanted to throw all the grants in one NIH pot. So there was all that pressure to compete at an NIH level type competition.

Dr. Berlage: Um-humm.

Dr. Kupfer: In other words there was a study section—two study sections that just looked at vision. Now there were study sections that just looked at the heart, but Varmus wasn't concerned about them (chuckles), and on down the line.

Dr. Berlage: And so you say that this whole new generation that now had to become heads of ophthalmology departments, their credentials were now much more research oriented is that correct?

Dr. Kupfer: Exactly, and especially because just about the beginning of the Eye Institute we started a diabetic retinopathy trial and there were 15 departments involved in recruiting patients. And the heads of those departments and the residency staff that were there running the clinical trials which was incredibly successful, learned a very, very good lesson that this is what they wanted to do in their professional life. So there was a nucleus immediately developed. We didn't even think about the possibility of training as a result of this clinical trial but that's what really happened.

Mr. McManus: But let's look at that. At the people that came on in the early 70s as head of the departments as compared to the ones who were there before and I don't think we can talk about the main—major places like Hopkins and Mass Eye and Ear and University of Miami, at that time which was ...

Dr. Berlage: Because they already had the research?

Mr. McManus: They had research going on but look at the new places. Florida of course attracted Kaufman. And he was a new guy. Who else? Iowa already had Blodi or attracted Blodi?

Dr. Kupfer: No, they had Blodi.

Mr. McManus: They had Blodi.

Dr. Kupfer: Blodi wasn't a researcher and their research capability wasn't very impressive until the NEI was created and then he brought very good people into the department.

Mr. McManus: Okay so Iowa would be—Iowa and you bought in the guy who is there now, or was that, was there somebody else in there before him?

Dr. Kupfer: Well, I'd have to look up who was there. There's that Indian chap who's in glaucoma.

Mr. McManus: Yeah, but I mean the heads of the departments. They didn't always do it as heads of departments. They just might bring on some strong research people.

Dr. Kupfer: Oh, yeah that's right.

Mr. McManus: How about Wisconsin?

Dr. Kupfer: Uh, Wisconsin? Gee I don't even remember who head of Wisconsin was until recently. That wasn't going anywhere...

Mr. McManus: Davis.

Dr. Kupfer: Yeah, that wasn't going anywhere until clinical trials.

Mr. McManus: Matt Davis, he's an example. He was the head of the head of the DRS and he went on to Wisconsin as the head of the department. New England, other than Harvard, Yale? Marvin was brought on.

Dr. Kupfer: Right Yale had Marvin, of course he was very research oriented.

Mr. McManus: Very research oriented. So it was Matthew Davis at Yale—I mean at Wisconsin, Sears at Yale who was a candidate for the Directorship of the NEI.

Dr. Kupfer: And although Straatsma was not a researcher, he was a pathologist. And he knew that research was very important.

Mr. McManus: He understood the importance of research. See you didn't necessarily have...

Dr. Kupfer: The same as Steve Ryan.

Mr. McManus: Yes. And actually Steve got grants at University of Southern California (USC), exactly. And those are three names, Davis, Ryan, Sears. We could probably think about a few at...uh, how about up North. You were already moving around those types of people at Washington and your replacement was research oriented.

Dr. Kupfer: Yeah. I'd have to sit down and think about this. But that's a good point to make.

Dr. Berlage: And subsequently attracting a different type, a new generation of students ostensibly as well to these universities.

Dr. Kupfer: For about 20 years between '75 and '95, the top 1 or 2% of every graduating medical school went into ophthalmology. Although for a number of different reasons than research

Dr. Berlage: Right.

Dr. Kupfer: But as the departments became stronger they had a certain attractiveness to medical students because here was a small system they thought gee, how small is the eye, but of course there's two of them but they duplicate each other and they feed into the brain and brain's an exciting place to do research and we could help people who were blind by golly and that, and that happens fast. They're not sick they're just blind, so we can help them get rid of their blindness. And even now some of the brightest people—not always the nicest people—but the brightest people are in ophthalmology. And that has really persistent until the late 1990s.

Mr. McManus: And let me correct something. That maybe 40% of the money went to the departments of ophthalmology. Five percent to the departments of optometry and 55% but those numbers are probably somewhere in the ballpark, went to just mainstream basic science

departments. And so those all expanded too. And I want to say that's part of the NIH phenomenon, you know in the basic sciences. If you looked at it there are a few training chapters on planning and they do discuss some of that but a major emphasis of NIH was on training scientists. Then they get all the way up to the 10,000 scientists to be trained and probably started back at one to two thousand back in the days when NIH was a billion dollars but that was a major—and you know because we were a new institute and had priorities for funding that allowed our guys to go out compete pretty well. Our guys being the division scientists who had training grants and fellowships and that allowed them to compete.

Dr. Kupfer: The Eye also lent itself to certain types of problems which were general in nature such as certain enzyme systems. And people like John Downing from a research point of view would sell vision research to outstanding scientists who were not in vision research and have them switch over to be grantees of the Eye Institute. Now I approached it from a different point of view. I said that the visual system is the only system where you can measure the sensory input and the motor outflow. So you could do an experiment and know what was happening on the input and the output. There's no other system that you can do that in as easily as it's done in the eye. So that galvanized Bob Wurtz's work who was working with alert, awake monkeys and that attracted maybe 30 or 40 researchers all working with the alert, awake monkeys and some of these were the most outstanding researchers in the field of neurology and neurosurgeries.

Mr. McManus: What did your vision would first be supported by Neurology?

Dr. Kupfer: They were supported by Neurology initially.

Mr. McManus: When?

Dr. Berlage: Who?

Dr. Kupfer: Starting in uh, probably starting in '52, '53 or so.

Mr. McManus: Okay. I was getting back to your earlier question. So that was in the 50s.

Dr. Berlage: Yeah.

Dr. Kupfer: Yes.

Mr. McManus: How about Wahl? (sp)

Dr. Kupfer: He probably was a little earlier, probably early 50s.

Mr. McManus: Okay, so George Wahl. Name me another Nobel Laureate going back...

Dr. Kupfer: Uh, Hartline.

Mr. McManus: When was he—who was he supported by, in the 40s?

Dr. Kupfer: He was supported—no, no, no these were all people in the 50s.

Mr. McManus: 50s? Yeah, see I was trying to go back. All those big names are back in the 50s, so that makes—and that makes sense.

Dr. Kupfer: And that was another reason why Neurology didn't want to cut off blindness, because it had a stable of pretty good vision people.

Mr. McManus: Oh, because some of the laureates were vision people.

Dr. Kupfer: There was nothing happening in Neurology, I mean the brain was the last frontier, they hadn't even decided it was the last frontier then. It was a black box.

Dr. Berlage: In terms of what the new increasing emphasis on research, a student ophthalmologist, you still have those who want to be practitioners...

Dr. Kupfer: The vast majority.

Dr. Berlage: But now you have more options for those who want to do research that wasn't there before.

Mr. McManus: Yeah, and they can attract researchers into their department who are not ophthalmologists.

Dr. Berlage: But want to study eye related problems.

Mr. McManus: Eye and you know, it's nice if you're in a modern era at a university department you want to have research, education and service. It allows you to compete. At the university level it allows you to compete for funding because you can raise money on the outside for research. And so you want to have that research component for a lot of things because you love academia and you want to flourish in the university environment. And I think just as importantly you want to be able to raise money because its—whose the best fund raiser? Who was the big—it was Cancer research.

Dr. Berlage: Um hum.

Mr. McManus: Not for cancer service, cancer research.

Dr. Berlage: Um-hum, yeah.

Mr. McManus: And the same thing that goes successful departments, like Hopkins or like that, when they raised money it's for research.

Dr. Kupfer: If you read Rowland—which I have to give you. He points out that the fight against cancer was a disaster. Because money was thrown at the Cancer Institute well before they knew what the heck to do with it and that's the worse possible thing you can do in the research environment because you distort completely what people should be doing. And in the case of visual research the research community was being starved for about 20 years so when the funds became available they knew exactly what they wanted to do and the grants rolled in very, very rapidly. We went from 150 grants when the institute was begun to a thousand in what, about 10 years.

Mr. McManus: Yeah.

Dr. Berlage: Was there any point at which the chairs of ophthalmology departments at universities were no longer practitioners but only teachers and/or researchers?

Dr. Kupfer: Well, I would say that...

Dr. Berlage: I guess that depends on the different type of institute or university.

Dr. Kupfer: I would say that the department chairman, except for very, very, very few exceptions had to see patients, because if he didn't see patients the chance for his raising funds was reduced.

Dr. Berlage: Is that the case in 2000 as well?

Dr. Kupfer: Oh sure. Oh absolutely. I received the brochure from Hopkins and from Harvard because I spent a—they're raising hundreds of millions of dollars to build new buildings for research not for clinical work. If you want to raise money to build a clinical building, what you do is wait until the professor dies and say we want to create the Maumenee Pavilion and get all the residents who trained with Ed Maumenee and all his patients to contribute money.

Dr. Berlage: And the people he treated are going...

Dr. Kupfer: That's right.

Dr. Berlage: Okay.

Dr. Kupfer: One of the lessons I learned when I was at the University of Washington was that if I had a really wealthy patient—and there were a lot of wealthy people in Seattle, remember Boeing was there, and Bill Gates. Don't send them the bill. After a while they come to

you and say, you know I haven't received a bill yet and you say, well I thought you'd be interested in expanding the research that we called upon to treat your condition and you get them talking and they make a contribution.

Mr. McManus: Yeah, and the department chair worked with researchers and they might have appreciated research more within that change over and in order to compete in the medical schools and these other things they had to appreciate research and be able to make it flourish. And a few of them tried to be researchers but they had to be men of all seasons for all the three. And it always was to me unfortunately that they ended up a lot of them not doing any one of them well.

Dr. Berlage: Now I'm going to just—I have a couple of more specific questions about the chapter. The ocular herpes simplex that you talked about was that an IM or extramural project?

Dr. Kupfer: IM.

Dr. Berlage: All right.

Dr. Kupfer: No wait a moment I take that back.

Mr. McManus: Would have been a clinical trial wouldn't it?

Dr. Kupfer: The herpes, uh he did his initial work when he was in the intramural program, and then came—Herb Kaufman, and then he came to the Mass Eye & Ear Infirmary and that's where he did the clinical trial.

Mr. McManus: Where is this, is it in the clinical trial?

Dr. Berlage: Yeah, no it's in the Beginnings chapter and you're talking about extramural re—well you talk about different studies at NINDB. And it wasn't clear to me whether that was an extramural study or IM study.

Dr. Kupfer: Well, I think you would have to say that it was an intramural study because that's where the research began. The clinical trial...

Mr. McManus: Let me look at it. We'll look at this.

Dr. Berlage: Here's the—yeah, you can look at that. I've noted it on that anyway so you can look at that.

Dr. Kupfer: Is that what you wrote?

Mr. McManus: Yeah.

Dr. Kupfer: Because I think I said the same thing. I was quoting Roland who was trying to show that the vision people in the intramural program were productive. They did work on toxoplasmosis.

Mr. McManus: That's a grantee, its extramural.

Dr. Kupfer: Oh.

Dr. Berlage: Okay.

Mr. McManus: I got it from someplace.

Dr. Kupfer: Yeah, sure, sure.

Mr. McManus: We'll look at it when we go through but they must have supported. This was just a list of stuff that they said they'd had.

Dr. Kupfer: Right.

Dr. Berlage: Ed a biometrics branch was started in eye diseases at NINDB and took on the task of compiling some statistics, but you say that that represented only a limited effort. Could you just expand on that a bit?

Dr. Kupfer: Well, I have a large unit in the uh—now what would it be in? It would be in the clinical trials as well as in the intramural program.

Mr. McManus: So we'll reference that section and see whether it needs...

Dr. Kupfer: This was the model reporting area.

Dr. Berlage: So many that's a phrase you need to qualify that statement.

Mr. McManus: Yeah, this is a statement for a full-fledged...

Dr. Berlage: And then you say an epidemiology study in glaucoma started in 1957 and went nowhere. Well the reader doesn't really know what 'went nowhere' means so...

Dr. Kupfer: We have that in his book.

Dr. Berlage: Yeah, that's too vague.

Dr. Kupfer: Yeah, but he was quoting the fellow who ran it (laughter).

Dr. Berlage: Yeah. All right now this is sort of a more abstract question I have for you. When you talked in the beginning about how NEI for the most part followed the template—the organizational, the legislative template that the other institutes had all been based on and I wondered—you quote Ruth Harris or you cite Ruth Harris and I wanted just to ask you again, do you believe Harris’ statement? If that is indeed true, did NEI stay according to that template? And did that template, do you think in retrospect serve NEI well? Was it a good template for NEI?

Mr. McManus: Well you know it’s like have an intramural/extramural and having contracts, grants and like that. That’s the organizational and whatever template that had always been used in the civil service system.

Dr. Berlage: But, see and I was thinking and maybe there’s a difference here though and that you know, pushing the grants and the research has really kind of—the research grants is really sort of break away from that earlier template that every one else is following. So in a sense that’s a different image.

Mr. McManus: Yeah, yeah, that’s right. So we did the organizational and the mechanism template but we emphasized different things.

Dr. Berlage: So there was room within that template to adjust then.

Mr. McManus: Absolutely.

Dr. Kupfer: Oh, yes. The first thing we did was phase out all the center grants and program projects.

Mr. McManus: So in other words these are mechanisms that they could use and they would have 80% in those mechanisms and we would have nothing in those mechanisms, all the stuff supporting individual ideas.

Dr. Berlage: So you, in general, organized the organizational template that you had based on precedent was a good one.

Mr. McManus: Yeah, I mean when you say that I could think of all types of problems that came up but basically it gave you the flexibility to do what you needed. Later on for example, in the intramural because we had to use a civil service method of appointment then you know, when guys got to be 60-65 and had been in research 20 years and their ideas weren’t as cutting edge as they were back when they were younger, we had no—because we had organization they would make the organizational structure something that you had to invest in and put these people into. When it came time when you needed a renewal there was no way to do that. They had civil service training and all the other things. And I think we’ll talk about that, Carl could talk about that in the Dowling Report, so that’s kind of one of the problems.

Dr. Kupfer: That's in the discussion in Intramural.

Mr. McManus: Yeah and on the grants you know, I would guess—you get into the culture, but you know, the peer review system and having everything technically reviewed and then to have the Council looking at it...

Dr. Berlage: And you guys made adjustments to it as you point out.

Mr. McManus: Yeah but that has it's own side of difficulties though, it would have been nicer to be able to have a couple of million dollars that you could do with what you wanted to, but we made it work.

Dr. Kupfer: That's called the contract program.

Mr. McManus: Yeah, and we made the other stuff work.

Dr. Kupfer: I really should write up the contract program because initially we did not have a contract program.

Mr. McManus: Right.

Dr. Kupfer: And one Friday afternoon at 4:30 I remember it distinctly, I received a call from Bob Berliner and he said Carl, what would you do with a million dollars in contracts? And Gil Hill to his credit had said that's going to be asked of you one day and you'd better have three or four ideas in your hip pocket. And sure enough I pulled it out and we put together four contracts, which I must admit really was not the highest level of research, because once you begin telling someone what to do and how to do it, they're no longer a researcher, they're a technician. But it gave us a contract program and again it spread money amongst the departments of ophthalmology and they liked that. But we decided after seeing how this money really was not well spent that we would use contract money pretty much for one thing and one thing only pretty much that one was clinical trials.

Dr. Berlage: Um-hum.

Mr. McManus: Yeah, and some things were in were in the international program.

Dr. Kupfer: Yeah.

Mr. McManus: We wanted to force the intramural program—uh, international. How do you trust some guys from India who does not even know what NIH is all about and their building of a scientific method, but do you think it's worth while because maybe they have some interesting patients, to start some research over there? How do you do that given the system? Well we have the contract program and we worked with the WHO—and we did that. We worked with the WHO giving them the money. But wouldn't it have been nicer

to have a couple of million bucks or two or three percent of the whole thing and just do with it as we liked with not a lot of uh—even the contract kind of requirements? I mean you are hearing on the TV about competing for stuff and all. We had to go through all of that with the contract program but we finessed it.

Dr. Berlage: Yeah.

Mr. McManus: But it would have been easier to have some other mechanisms. Would I allow the NIH if I were the Congress to have those? No. Because 90% of them screw it up.

Dr. Kupfer: Absolutely.

Mr. McManus: So for NIH I think it worked out okay. But there are other things—and you know if you want something changed, you want a new mechanism, get the Congress to do it. Now these guys these days would say well that was in your day Ed. It was easier in your day. But it wasn't any easier. They had a stronger legislature. But we exercised the legislative stuff too. I don't think I talked about the Alliance for Eye and Vision Research and Carl was everywhere in the thing but we have a whole organization funded at a half-million dollars.

Dr. Berlage: A whole what organization?

Mr. McManus: An organization funded at over a half million dollars a year that we started. And we've got these active director ophthalmologists that you talked about to spend their time running from the outside. And that's what I did for three years.

Dr. Berlage: And that's the Quinn, right? Is that Luke Quinn whose heading that?

Mr. McManus: No that was back in the old days when you had the RPB and you had Lou Quinn work for them but when we—the RPB kind of got or whatever it was and it wasn't a broad enough base, so we started our own organization in the 80s.

Dr. Berlage: Did you talk about this?

Mr. McManus: No.

Dr. Berlage: And you don't want to in this?

Mr. McManus: Well, probably not because it's now a very influential—we could. When we get it later on, there is a number of kind of—and I still have to interview Steve Ryan who was the head of it. And Steve was also the head of the Program Planning, well trained. We trained all these guys in the broad, if you look at the stuff from Straatsma if you look back at his interview. Straatsma was kind of our guy. He was placed in academia but we put him in charge of NEHEP. He was lots of different things. He was a founding

member of the Alliance, but he had always his own agenda with organized ophthalmology. Steve Ryan was more a product of the NEI in as he was a young man at the time the NEI started, in his early 30s. Was an NEI grantee, kind of got invested in the whole thing. Very reliable and has as his priority—research. Even though he's a practicing clinician, he's a disciple of Ed Maumenee also. He's the head of this Alliance project and maybe the most—you know I'm probably over stating this as I do a lot of stuff, but he may be the most important medical person advocating for NIH right now. He's stopped a bill, this new bill that the Congress wants to send in that he has stopped. It would have put NEI together with Neurology and Mental Health and the rest of them.

Dr. Berlage: Right.

Mr. McManus: And I think he just stopped it. And I was called in this summer to help with stopping it. And you know it's all a part of this.

Dr. Berlage: And what did you do? And how did you help him?

Mr. McManus: I went to the Director of the NEI and the Deputy Director of the NEI and said what are you doing about this? And they said nothing. The NIH Director told us not to do anything, we can't do anything and I said you'd better do something, this is very important that you better support these outside guys and this is what I suggest you do. I told them they must speak up at the NIH meetings. I suggested that they be a lot more active but they said that they said you can't do that anymore. And Steve did a lot on his own. Steve is well placed now because at the Institute of Medicine and the Academy of Sciences, he is the executive secretary of that overall group. So in other words we have an ophthalmologist who speaks at the Institute of Medicine and the Academy of Sciences and coordinates all of the biomedical policy stuff for that group. Whereas 30 years ago there was, said that group, I don't know if they ever officially made it so, but they would have said if they were asked, don't have an NEI it's not important enough to do. Now we have...

Dr. Kupfer: They didn't have an ophthalmologist.

Mr. McManus: Yeah, now we have a guy who's heading the whole thing for them.

Dr. Kupfer: I was the first ophthalmologist to get into the Institute of Medicine by a fluke.

Dr. Berlage: Well you know now it seems that there's this whole, I mean management as a discipline and as a profession has become so important and so—it's feelers are going out everywhere especially in DOD that its become, you know has this whole mind of it's own and seems in some ways it's become a whole another layer for implementing certain changes that Congress to certain extent is limited from doing anything about because they'll go ahead and start implementing all these things before it's been approved by Congress. All the BRAC stuff, all the new personnel system...

Mr. McManus: BRAC, what is that?

Dr. Berlage: BRAC is the Base Realignment & Closure.

Mr. McManus: Oh yes, yes.

Dr. Berlage: The Rumsfeld department and management people have just sort of done whatever they want and all this stuff goes out to all the different agencies you know, doing stuff that would not—you know. Congress is going to have a very difficult time stopping that because the momentum pushed through different managerial procedures. It gets going and it's very difficult to stop. And the whole personnel system that hasn't even been approved by Congress is all going forward.

Mr. McManus: But the problem with Congress is that Congress is still operating—listen to Newt Gingrich trying to state this. I'm not necessarily of Newt Gingrich's politics but Newt Gingrich is a visionary and he's the first one to say that Congress is based—all of their institute and procedures are from the 1920s. I mean we're in the modern era now there's this whole—and they don't even have hearings about a lot of these things. They could but their computer systems aren't up. I mean on the internet you can do anything these days. Things could happen. There's decentralization of everything. Congress is all centralized and they'll call the central person up and ask them. This is not the way the world works today. It's all decentralized.

Dr. Kupfer: You must have read when I was called into the Director's office to appoint a deputy director. You read who I wanted appointed?

Dr. Berlage: Yes.

Dr. Kupfer: And he was not acceptable because he didn't have an M.D. or Ph.D. I wanted a manager.

Dr. Berlage: Um-hum. Right.

Dr. Kupfer: And it took six months for Don Frederickson to finally change his mind.

Mr. McManus: It would nice to interview with Bill Raab. We bought him along.

Dr. Berlage: But management's changed a lot since I think in the past even 10 years in that it's really sort of the—the means have become the emphasis rather than the ends. At least that's what I've been experiencing.

Dr. Kupfer: Where is this happening?

Dr. Berlage: Well, I think it's happening all over but it's especially, you know, you see that at DOD, where the paperwork and the management and people falling all over themselves to implement the managerial procedures which are just so nonsensical.

Mr. McManus: It's not just that management has changed because management—you'll have, like I talk about PPB and like that.

Dr. Berlage: Yes, yes...

Mr. McManus: They'll come up with new kinds of terms to use, goals and objectives go back a long way and that's what all of these things are. But what's really changed is who's in charge. The manager's are now in charge.

Dr. Berlage: Yeah, maybe that's it. Maybe that's it.

Mr. McManus: That's what's changed. There is nothing in management that is new. The emphasis in the last 50 years, the emphasis—the template if you will maybe has changed and I really think its getting good management toward decentralization rather than centralization. But those principles are all there in that who's in charge in the different spheres. You know in business, it used to be the marketers, then it was the financiers and now it's the managers. And if you look at some of the companies that when down, they weren't CPAs or engineers or marketing managers manipulating all over?

Dr. Berlage: Yeah.

Mr. McManus: And as I always say, you know to people—I don't think its anywhere in the book and maybe it should be, is that, if its in there you should put it in as that—I was probably in the worse organization in NIH before I came here, I was in the Library of Medicine but before that I was in the worse organization at NIH, the Department—the Division Research Resources and I did a lot of things there. And I was able to help them to do all kinds of things. But I never knew what was good or bad for science. So, I probably helped them do a lot of bad things. But when I matched up with Carl I was able to help somebody who really knew where they were going and what was right and what was wrong.

Dr. Berlage: And you brought that element that was needed.

Mr. McManus: So, a good manager—a good manager could bring you any where that you want to go and that's where you were getting the ends and means you were talking about. But if you don't know where you should be...

Dr. Berlage: That's why I was focused on...

Mr. McManus: On getting something done.

Dr. Berlage: Yeah, yeah.

Mr. McManus: On getting something done. Whatever is decided, but you need to know where you should be.

Dr. Berlage: Where you are going.

Mr. McManus: What the vision is. And Carl had the vision part, for sure, and the leadership. That's the other thing. That's one other thing that probably has been deemphasized, the leadership.

Dr. Berlage: Thank you, that was very insightful, taught me something (chuckles). I think that is the last of the questions that I had, the big questions.

Mr. McManus: See, we're also—you should forward us any of those that you have. As you go through this I expect us to have it—cause we already started today, before you came and we'll have a good discussion about a lot of these points. And now that I know it's been a long time since I've written this stuff and looked at it...

*End of Interview*