North Shore LIJ

North Shore-Long Island Jewish Health System

DAVID S. TAYLOR ARCHIVES

This is an oral history interview conducted September 27, 2005, with David Eidelberg, M.D., Director of the Neurosciences Center of Excellence at the Feinstein Institute for Medical Research. Dr. Eidelberg joined the staff of the Department of Neurology at North Shore University Hospital in 1988. The Interviewers are Dr. Lawrence Scherr, Academic Dean Emeritus of the North Shore-Long Island Jewish Health System and Daniel Sokolow, Corporate Archivist.

Scherr: Thank you very much David for participating with us in this oral history project. Your comments at some point will be part of the written history as well for this. At any rate, it is very helpful to us if you provide a little bit on your background, your educational background, your medical training and the kind of program you had when you first arrived at North Shore. From there, we'll go into your research work and then your work at the Research Institute.

Eidelberg Thanks, Dr. Scherr. It's a pleasure to be here today and to have a little bit of time to look back on a really long and interesting experience here. So, at the time of this transcription, I'm 48 years-old and I came here when I was 31 years-old so I had come pretty quickly out of my post-graduate training to take a job at North Shore. And how I got here is interesting. I'm a graduate of Columbia College in New York and then Harvard Medical School, where I graduated in 1981 and I did my residency training at Harvard as well

primarily at the Brigham and Women's Hospital, which is now the Partner's. When I was there, it was Peter Bent Brigham Hospital still and I was interested in Internal Medicine early on and Dr. Brownwald, Eugene Brownwald was the person who was critical to my training. Originally I thought to go into cardiology and I had other teachers at Harvard Medical School in this burgeoning new area of neuroscience; we didn't really know what that meant in those days but it appeared to be an area where there could be new therapies for patients and looking back, I decided to choose Neurology after being lectured to for quite a while up there. "Are you sure that's what you want to do given that you can do nothing for patients?" Dave Dawson, who was the Residency Director, who I think just retired said, "You know what this entails, a career in Neurology, is a lot of futility." And I just assumed that they were being negative and that there were probably likely to be some interesting things out there and since I had made up my mind at that point, there was very little they could do to dissuade me. So I did my clinical training there and I was Chief Resident in Neurology there in 1986-1987.

Scherr Had imaging started in the mid-80's?

Eidelberg In a very primitive – I was probably one of the few people who remembers a time when there was no MRI, the MRI came when I was in medical school and it was something that was as if dropped from another planet that we would look at and sort of... There were people who were skeptical even and they weren't sure if those were real images of the brain or how they were conceived of as some artifice, something technical that was really not to be understood.

Scherr Well, the CT scan preceded that, did it not?

Eidelberg Yes. We had CT scanning readily available but very primitive when you look back at it, how terrible those scans were. But they were good enough for us to do what we needed. You could diagnose strokes, brain tumors.

Scherr Up until that time, your anatomy was mostly by inductive reasoning.

Eidelberg Inductive and we'd like to believe deductive to some degree but it was

050 disturbing to me as a student of Neurology in those days, because I love the elegance of these kinds of clinical diagnoses. You could pinpoint things to the one or two millimeters in the Pons but what really, I think, got me into imaging, and this is an historical discussion so it might be good for people, whoever come across these archives to hear about, there was a Dr. Denny Brown was in retirement when I was a medical student. He had already stepped down; he was a famous professor and his interest was in primates and something curiously that I would come back to later in my career and he would make surgical lesions in these in these monkeys to deduce where the pyramidal motor system was and different ancillary cortices in these monkeys to go with the epilepsy surgery that Penfield[1] and others were doing at the time to try to figure out what these other silent brain areas were doing. Now Denny Brown was a famous person and he was also rather terrible from what I understand, to people, including not just his secretaries, even more so than the house staff and his various attendings and he was quite old when I knew him and he became nice in his old age. He was not as tough on the students and he like talking to us.

Scherr That center in his brain of nastiness must have atrophied.

[1] Wilder G. Penfield, MD, neurosurgeon and founder of the Montreal Institute of Neurology

Eidelberg Must have. Mercifully, it involuted over time. But Denny Brown was a radically difficult person in his day and he would talk about his diagnoses and how clever he was and all that. He was very proud, even in his old age but what made it interesting to me was, we had the archives of all of these histories, his case histories. The patients were still living then. You know, they would show up in the emergency room and there would be these long English notes written by Denny Brown describing fully where the lesions were and they were wrong half of the time, so his odds of being correct diagnostically were pretty much at chance levels so, I mean he was a nice person then, very instructive but you figured, if he was – as great as he was – good only 50 percent of the time in making these diagnoses, maybe technology would have a role in making things a little bit clearer. Raymond Adams, who was active at that time too, he went into retirement when I was a third year medical student and he's still living today at 91 or so and Adams was right probably two thirds of the time so probably human beings can be right at best, two thirds of the time in clinical Neurology and the good news was that there was a lot of new methods of diagnosis that were turning up and this MR thing in particular was exciting. Even more exciting was this kind of idea that you could map brain function so it's not just the anatomy of the brain and do rounds and show where these lesions were but actually being able to look at where the thought centers of the brain were in living people while they were thinking or speaking or doing motor tasks so it seemed quite interesting, although it was still a dream then that MRI could be used for that purpose. So, as Chief Resident, I began thinking, "Well, I should go to some place

where people are doing research on MRI and learn a bit more about it and maybe I could then have a career in Neurology that involved imaging as a means of studying the brain and even studying treatments". That was kind of what I was thinking and I think I'm very lucky because as I'll tell you, there are very few opportunities that presented themselves to people at that time to pursue this type of career and I was among the first ones to go that route and people were supportive, I think throughout the whole endeavor, as I look back at it, but also worried that I was doing things actively to destroy my academic career in the process. So I wrote away to England because I had heard that at Queens Square Hospital in London, they were interested in doing MRI of the brain to map function and a fellow I wrote away to Queens Square said that I gave him a little bit of history about my background and what I was interested in doing.

Scherr That was after your Chief Residency?

Eidelberg I was in my Chief Residency year so.

Scherr Oh, during that year. You were concerned about the year afterward.

Eidelberg Well, I would either have to go into private practice, which I didn't think was too horrible a possibility, I like clinical Neurology but I figured I should just give this a go and my bosses at Harvard said they'd be happy to keep me there to do whatever I wanted but the salaries were very low and that they preferred it that I went somewhere else for a while and that if things really worked out, they'd be in touch at some point and I'd go back there in whatever capacity. It's interesting how well they kept track of my career and how often they remind me how good they were to me by not encouraging me to stay there and

I think…

Scherr Well, that's typical of Harvard, incidentally.

Eidelberg Yes, I think so.

Scherr That story is repeated over and over again.

Eidelberg But I'm grateful. I knew Associate Professors who were moved into big Chairmanships by Brownwald and they were up for full professorship, had been through the Harvard system for perhaps two decades at that point and Brownwald would just say, "Well, beginning in September, you're going to be the next blah, blah, blah Professor of Medicine at Baylor University, Chair of Medicine, Chief of Cardiology", whatever it was.

Scherr Well, that was the intent of Harvard to spread its wealth.

Eidelberg Well, it's also clever because it pruned out the glut and talent that would accumulate every then years at the top of the system.

Scherr That is right, it allowed room for new people.

Eidelberg Yes, it was very good.

Scherr Did you go to Queen's Square?

Eidelberg Well I went there but I'm just going to finish the story since I'm here that this poor guy who had gone to Baylor as Chief of Medicine was crying in his office; why was he being asked to leave if it seemed totally…crying, a fellow 45 years-old, distraught at having to leave Boston. For me it was a good thing. I kind of liked the idea of going somewhere exciting so London seemed exciting and Harvard gave me a Moseley Traveling Fellowship[2] so they paid my salary for the year that I went to London to study these things,

[2] Bequest of Julia M. Moseley for Harvard Medical School graduates to study in Europe for at least one year.

which was kind of nice of them. And in that year I learned a lot about MRI and even developed and published several techniques that came into use in the stroke field to map out ischemic areas in rodents using MRI so you could detect vascular insults. Of course, you could do that with routine MRI but this was a way of looking at brain at risk for ischemia and those at risk areas were to be targeted by interventional treatments which were coming – the bypass surgeries and some of the thrombolytic treatments. So I spent my time in London doing that and then they said, "Well if you'd like, you could stay here and continue to do this but we don't have any money for you." So I called the home office and they said "one-year fellowship, that's all we have, non-renewable." So I kind of thought London was a bit dreary anyway and it was probably time to come back to the U.S. So I came back to look for jobs and spoke to my old Residency Director and he said, "Well, funny you should be here. You know, there's a fellow we know in New York who is looking for someone at a junior level with your type of interest." And I'm going, "Who would that be?" "Well, there's this Fred Plum at Cornell". And…

Scherr Harold Wilkes' successor.

Eidelberg Harold Wilkes' successor. At that point though, Fred was very well entrenched and he remembered me, he had a remarkable memory, Fred, and he remembered interviewing me for residency but he never forgave me for staying in Boston and not training with him. But Fred and I, had over the years a very nice relationship. But he was a very tough person in his own way. He ran a different school of Neurology; he felt that the Boston Neurology was very effete and inbred and probably silly and what he wanted

was pathophysiology and mechanisms of disease and he said "although there will never be a treatment for any of these things, at least we'll know how it happens." So I went to see him and he said, "Look, we can't give you a staff position this year when you come back from England but I want you to go to work in this new technique we have invested in." He said "that magnetic resonance will not amount to anything. It's nonsense, but that PET, there's something that you should work on". And I said, "Oh, I know a little about that. I seems like difficult and engineering-based and hard to understand." He said, "Well, if you don't understand it, then we can have you work in our stroke unit or something like that. Do a clinical job." "I'll give it a shot", I said and I came back from England with a pay cut, living in a small Cornell studio apartment. Which was pretty…it didn't have good air conditioning and I think the plumbing was not very good either and they had this system where they would pay for housing but being a fellow and not a resident, I had to take housing off campus in some buildings that they owned on the upper East Side and it looked pretty dismal because the fellow who was running the PET laboratory was at Sloan-Kettering by the name of David Rottenberg and Rottenberg was a martinet. He was a very tough guy and insistent on high level computer skills. So the first day I showed up he gave me an 800 page documentation book for Word, what was to become Microsoft Word and said, "You have to learn this". I said, "I can hardly type". He goes, "This summer you have to learn Word".

Scherr Let me fast forward a little. How long did you stay at The New York Hospital?

Eidelberg I was there for one year because, the story seems a little aimless but it's very relevant to how I came to North Shore. Because…

Scherr Well, at the time, Cornell was very involved at North Shore and was a recruiting source for it. I don't recall when Beresford left and John Halperin came but was it Beresford that recruited you?

Eidelberg Yes. I came… well, I'll tell you briefly what happened there is that two things that were very critical to my future career happened at Cornell, none of which involved research. The first thing was that this fellow Rottenberg was interested in very primitive ways of looking at correlations between brain

200 regions, sort of very primitive form of spatial covariance or what ultimately became neural networks and I got thrown into a room with a guy named Jim Moeller with whom I still work, who was a Ph.D. mathematician and I was working all day and night scanning people with Parkinson's Disease. Why Parkinson's Disease is that that was the project that they gave me and I really had no deep interest in that but he said, "This is first year fellowship. You have to do this."

Scherr You were scanning with the PET or MRI?

Eidelberg With PET.

Scherr The PET was across the street at Memorial Sloan-Kettering.

Eidelberg At Memorial Sloan-Kettering. And it was very primitive but we used new techniques then of glucose imaging and fluorodopa and that project, we published the work ultimately but it was very scattered but it put me in contact with people who had an interest in this particularly Stan Phan at Columbia who was very interested in imaging and he got me interested in Parkinson's

Disease during that year. The other thing that happened was that the lab closed that… I think through one of the many political kinds of upheavals that occurred in Cornell from time to time. Rottenberg was out and he moved his lab to Minneapolis and then the PET was decommissioned and ultimately they bought a new one years later for cancer use as was appropriate for Sloan-Kettering's mission but it left the Cornell disease-related work out of the loop. So I had a choice; I could go Minneapolis or find work in New York City. So Plum called me in and goes, "Are you going to go to Minneapolis?" And I told him, "Not if I can avoid it". And he said, "Well, I have this fellow I know at North Shore named Dick Beresford, and they've just invested heavily in a PET scanner." And I said, "Well, do they have a cyclotron?" He goes, "Oh yeah, they have that, and apparently, they have a radiochemist." He was laughing. They were quite patronizing in some ways about North Shore as I was to find out in subsequent years but he said, "Well you ought to see this fellow Beresford and talk to him because it seems that they want to recruit people to work on that PET at North Shore" and that they really don't have anyone. He said, "For all you know, you could make something of it there and if not, we can take you back here and you can run a stroke clinic or whatever." And so I went to my boss Rottenberg – Plum was the Supreme Allied Commander and this guy was sort of my Commandant – and he said, "You'll be in practice within a year if you go to North Shore, how horrible…stupid place." So once someone tells me that, I kind of figure that's very motivating to do the exact opposite.

Scherr Well, I would say that Rottenberg joined a legion of people that said that.

Unfortunately, many of them are not still alive to see the error of their ways but those who are alive are a little humbled, in fact, a lot humbled.

Eidelberg I think that's true. I agree. I made it part of my own personal mission to make it so good in subsequent years, what I was doing here and to develop our program just to make them feel humbled by their initial impressions because those impressions really were not based on any science. It was just basically a total arrogance that somehow research had to take place at the main campus of a university, of a medical school and that it was actually impossible for research in any serious way to happen at an affiliate hospital. That's how they looked at North Shore; perhaps a convenient teaching hospital for their medical students, maybe a place to send competent practitioner graduates when they finish their fellowships or residencies but not as any place they'd be interested in cultivating research. So, Dick Beresford was a great guy and he really encouraged me and gave me what by today's standards, would be viewed as a very modest start-up package but it was certainly more than I was expecting and I'm not meaning my own compensation. The idea there was that I had access to… I was able to recruit Dr. Bijay Dawan who still works with me as a senior PET biophysicist, a very competent person and I met Tom Chaly, who's still at North Shore and still working closely with me, who's a senior radiochemist with fine training from the Montreal Neurological Institute. So, the question was, could we use the facilities at North Shore to do more Parkinson's research?

Scherr Well, of course, the PET had multi-uses, although you were one of the prime users to begin with. The other one was for neoplasias.

Eidelberg Oh, yes, absolutely. My issue was strictly was there or not… It never was an idea of manipulating all the resources for Neurology and what was ultimately Neuroscience. The bigger issue was: could that be used in a way that we could do our research effectively? And that was a tough decision because the track records were, I knew Dawan, I knew a bit about Chaly. The question was really the environment. Was it the kind of place where people could work together in some kind of unobstructed way to develop something, because the reality was, we were not anywhere near close the level of sophistication or having enough experience as a group to apply at that point, for NIH grants, but good enough to begin building this thing with some foundation support. And that's what we went out and did. When I committed to come here, I began applying to foundations to help us with things that would no longer, I mean I don't think we would ever get support for today. We wanted to make F18 fluorodopa, which is still the mainstay of Parkinson's research and tracking the dopamine system and I had to raise $100,000 which seemed like an astronomical amount then from a foundation to buy the necessary targets for the cyclotron people, Bob Dahl and ultimately Don Margouleff to give us the tracers we needed. And Chaly, being really competent had come from a background of a lot of high level mono-amine radiochemistry knew exactly how to do it once we had purchased the hardware. But the first couple of years were very tough. The camera was a good camera but not ideal for what was to become the state of the art in neurological research and the cyclotron did well but there were a lot teething pains then; different groups working together, who's going to control the

agenda for imaging on a given day and it took a while until we all got used to each other and that's where North Shore was really, in some ways, at its finest, I think. It allowed people who were competent, to come together in a way that really was surprisingly unobstructed to create something very good. At the time, I mean, you remember, it wasn't easy…there were always things happening and as is typical of a lot of people, I mean it's normal for academic groups and in business to have competition within and people trying to seize whatever control they could but North Shore and I think Larry to your credit, and I think Jack Gallagher too in those days, they let us do enough on our own which I believe fervently could never have happened anywhere else. It couldn't have happened at Cornell certainly from what I knew of them and Harvard Medical School in the Brigham Partners System as good as they are I think, it just never could have developed either.

Scherr There's a certain rigidity in those institutions.

Eidelberg North Shore sort of said tacitly, of course, no one ever said this but as I look back, "We're a young institution and you're young and we want you to grow with us and try to figure out…" It was challenging. It wasn't as if it was made so easy.

Scherr The concept of putting a PET scanner in an institution like this in the '80's was very unusual.

Eidelberg It was unusual but also was mistrusted by people. People thought that this was going to be another billable tool.

Scherr It was not billable when it was put in. It ultimately became partially billable later.

Eidelberg Over a decade later.

Scherr About ten years later, right.

Eidelberg It took a long time but at North Shore, as late as probably 1995 people were saying, "Oh, the PET program at North Shore is clinical." And by that point, we had probably thirty or forty very research-oriented papers and there was a lot of global mistrust, not of North Shore specifically but of any up and coming research units. I think it would be true today of Cleveland Clinic if they were to get involved in PET seriously. They never did. They wanted it purely as a clinical tool. Other universities wanted it for research but didn't have the creativity or the openness to recruit people in and invest in them the way North Shore did. I am not so sure, I mean there was a general freedom I think, the institution felt that they could back these kinds of initiatives and that ultimately the philosophy was that the success of a research entity at North Shore would enhance the overall medical center. That equation was pretty unique and I think that equation persists to this very day.

Scherr Well, it was a little different. The image of the institution was that of a complete institution and to be complete as a health care institution with a very

350 strong academic base, there had to be a major research component. So that was part of the original mission.

Eidelberg But the sort of challenge and ultimately, I think, the success was being able to accomplish that component of the mission without a medical school.

Scherr But it didn't need a medical school as ultimately turned out. The medical school brought a collation of people. There was a very strong group of people whereas, the people who were research scientists was only a small select

group. That was the big difference.

Eidelberg Well, the issue of the medical school was what made the North Shore experiment incomprehensible to the observers at that time. The fact that people could consider… This was very revolutionary because similar things have happened in research institutes. We'll get to research institutes in a little while but in California for example, there are a number of spectacular research institutes that develop with very limited affiliations to medical schools.

Scherr Yes, they had other sources of funding.

Eidelberg Right. But while North Shore took it on themselves to subsidize a lot of these things which was…

Scherr Well, it wasn't North Shore as much as it was the Faculty Practice that actually bought the PET Scan

Eidelberg Oh, I know that. The fact that the executives of, the management of the hospital permitted that altogether. Because in many places…

Scherr Well, it was actually the faculty that permitted it because had they not spent the money on the PET scan and the support of it, they would have taken it home. So, the real heroes in this were the actual clinical faculty.

Eidelberg Well, I'm always impressed and you see, I think the fact that it occurred period was something that way anteceded things that were to occur in the country years later and the fact that the people who earned the money obviously, were the clinicians who were working hard in those years and the favorable reimbursements rates, the whole climate of medicine was a bit different but…

Scherr The word climate's the correct one. It was the right climate for it. It couldn't happen today. It could not.

Eidelberg But the philosophy was unique and that is sort of what – there were a lot of heroes in the story as I look back and I don't include myself among those. I mean, really the people who allowed it to occur and there were misgivings periodically about whether this was a good idea and was it going along the track that people really had wanted for the Health System but there was a loyalty to it. It was an initiative that once it began growing and that people felt comfortable with and that they like the stability I think of the management there, Don Margouleff in particular, that he does have to this very day a very healthy, pleasant attitude about bringing younger people in to do research and

400 to encourage people's research activities and sometimes I think he doesn't get enough credit for what he did. But in some places, he is the Chief of Nuclear Medicine for many years in Dr. Scherr's Department and what Don did here for PET I think, there were other more achieved Chiefs of Service in great hospitals who refused to go the distance for investigators even then to the degree that Don did at North Shore for the Research Department, invested – at that point, it was still the Research Department – and it was pretty amazing as I look back at it that this was a type of philosophy that really pre-dated a lot of derivative points of view that happened ten, fifteen years later in different places. At North Shore, it really happened first, at least to my… There may be some other examples but… Cleveland Clinic to some degree.

Scherr Cleveland Clinic's about the only one.

Eidelberg The Mayo to some degree too although that's a much different corporate

philosophy than exists here.

Scherr It's a different culture entirely.

Sokolow If I could just turn the question on its head a little bit, do you think that freedom is because there was no real university connection?

Eidelberg That's a very good question. I used to think and I think I was vocal when asked about it that the future, the success of a research unit at North Shore, or anywhere else was really important to have deep bonds to the parent medical school that I, for many years, felt that the only way that you could get decent young faculty, give them tenure track spots, assure… convey to the NIH the stability needed to carry through to service the contracts and to deliver the research could only happen through vehicles that were perceived of as being stable academically and financially and that I perhaps labored under the same misgivings as the people who trained me at a place like North Shore had a lot to recommend it but it also had deficiencies in terms of an academic culture that whatever one had to say. There were for better or worse, there were different academic cultures at these major hospitals. Now looking back to answer the question, I think that we precisely succeeded here because of a very interesting type of relationship with the medical schools and plural is really the key word. The fact that as the medical schools became more desperate for support because they were of course, slaves to the same financial vicissitudes as had happened to the private hospitals, their endowments were good but often times not healthy enough to sustain the tenure systems which had become unwieldy and the inflated prices of start-up packages for super investigators. So, they were very dependent on NIH dollars and very

shrinking, in real terms, shrinking endowments although the monies were being replenished to some degree, they really didn't rise to the expenses.

Scherr The real advantage of a medical school is their background, their tenure, not the tenure to their faculty, their own tenure. In other words, they had reputations and it was easier to get grants by the name of the medical school. And you have to recognize that of all the medical schools, 150 or so medical schools, that only about 30% are research medical schools. A good almost 70% are clinical medical schools and do not have major research establishments. The ones that you have identified and talked about are major research institutions but that was one of the disadvantages of North Shore. It was the new kid on the block and there was no question that its future could be validated which it is now.

Eidelberg Well, no one thought… so it took me a long time and through repeated negative experiences with the medical schools to, in other words forming collaborations with the parent medical school, particularly Cornell became very challenging. They wanted all the activity done on their terms and all the finances to reflect their own needs and they were doing us a favor in other words by collaborating with us.

Scherr That still exists.

Eidelberg I have a lot of people on pay lines for me who are circulating around Columbia University these days who it goes the other way.

Scherr For a while, you ran the Movement Disorders Clinic at The New York Hospital.

Eidelberg For the first ten years. I actually phased it out after ten years in 1992 but I've

been doing it on a regular basis since 1991 and I really tried as best as I could to stimulate interest and collaboration between Cornell and North Shore and particularly in a very underserved component of Neurology, namely movement disorders, Parkinson's Disease and related neurodegenerative conditions affecting mainly the motor system. That's what we were involved
500 in. I was seeing patients there every week and generating increasingly smaller sums of money doing that; in the beginning it was actually not too bad financially and there was also a different attitude at Cornell. We were still much more involved with them but the nature of doing clinical work there helped me get an ongoing perspective of what was going on in the main campuses while working here so I sort of kept track of how their recruitments were going and what kind of people were being brought into the Departments and I think the crossover point for me happened some time in the late '90's as I began to get NIH money here and I began to see a complete lack of capacity on the part of Cornell in Neurology at that point to bring in substantial NIH dollars and the arguments of whether who should serve whom seemed irrelevant at that point. We had our own unit set up and I was collaborating with groups all over, not just Cornell although I had a very warm – I still do – a very comfortable, pleasant relationship with those people. It's simply the way their medical school needs were evolving. It was becoming difficult for them to branch out into collaborative enterprises period. Everything had to either be under their ownership – control or ownership – and they were increasingly unwilling not just to commit resources because they never had to do that, but to commit any personnel training or otherwise to our efforts here.

To answer the question, I think that North Shore's development and subsequently North Shore-LIJ I think had a lot to do with the fact that the medical schools were present but they were maintained at an arm's length which allowed a certain type of unique development to happen here that could not have happened otherwise and that development is still happening and it's probably an object of interest by many people to know how…

Scherr Well, it was deliberate. It wasn't by chance.

Eidelberg Oh, I know.

Scherr There's still a group of people that talk about being a medical school, probably not the way to go for this Health System at all.

Eidelberg I'm inclined to agree.

Scherr Not anymore, nor does it add anything. One can make comfortable and even

550 valuable relationships with medical schools and the one with Albert Einstein College of Medicine is a comfortable valuable one. The one with NYU is a little less comfortable. It all depends on who's running it.

Eidelberg That's right. It's a moving target.

Scherr Exactly, it could change overnight.

Eidelberg They have their own Boards and their own parochial concerns and it's interesting; it's easy to understand how sometimes they extend to North Shore's involvement; sometimes they exclude North Shore's involvement.

Scherr But the future of the faculty here does not depend on the medical school, it depends on the Health System.

Eidelberg One important feature that I had viewed as being critical to developing a research unit at North Shore that I think was important initially but became

less so over time was indeed the ability to recruit faculty as a Cornell campus but that Cornell campus/affiliate did help in the very early days.

Scherr Yes, that was needed because there was nothing else to validate the situation. You're right. But it's not needed now.

Eidelberg Oh, I do not think it's been needed and I can't speak globally for many other research departments or for the research Centers within the Institute or for the Departments that I know. I think that that hasn't been a consideration of applicants for a long time.

Scherr Not for faculty, for residents it does because the residents are imbued with that philosophy and they're four years out of medical school and they've had no other experience with which to compare.

Eidelberg That's right.

Scherr But with a faculty that has a much broader base and a fuller understanding, that's not the key criteria.

Eidelberg And our faculty as I look back on the research faculty, it's become - there was always one sticking point that you mentioned earlier – was the tenure system. Tenure is sort of like the welfare system for academics and it's easy for me to say that, not having worked within a tenure system for most of my career but people are very hung up and we have lost some investigators over the years because of tenure.

Scherr Because we hadn't adjusted to it and now we have by contracts.

Eidelberg Yes and I was actually involved. I was very pleased with having been heard

600 through multiple meetings about that because we're getting all sorts of people having an interest, at least in neurosciences who have tenure and are willing to

forget about it. They realize in the end that that's not giving them all that much in terms of true security and we offer scenarios for senior people, especially that will give them every type of emotional support that they need to conduct their careers and have their families be secure without having to worry about the sort of slings and arrows of a tenure system and I was about ready to say a liberal arts faculty. It's almost like that to some degree at medical schools.

Scherr Well, that's one of the problems of medical schools at universities. They are not stand alones and when they give benefits such as tenure, it's tenure in literature versus tenure in neurosurgery and there's quite a bit of difference.

Eidelberg Well, that's about what I was ready to say at a liberal arts college because when you look down at the grassroots commitments that entail tenure, which I did as we were looking at different candidates, I think it's a nice excuse for people to use when they don't want to come here. "Well, you don't offer tenure." Of course, they're not the people you want. I told that to…

Scherr They do want contracts and contracts are very important.

Eidelberg And they're increasingly the type of person who would want to work in a research institute, let's say. That is the kind of individual who is knowledgeable about their legal rights and their representation.

Scherr Can I come back to your research? We went by it very quickly. You started your research really in the mid-80's in a serious way. You actually were in the beginning of the '80s when you just got out of residency but your research is linked to new and developing tools. It's the whole area of imaging that has changed dramatically and it's been in degenerative diseases, movement

disorders. Could you discuss with us, the future of your research in those clinical areas?

Eidelberg The background of this work, and it's very astute I think to realize, as I tell myself very often, the research itself isn't linked to any one imaging tool but it's linked to acquiring information on a regional basis from the brain and we've been better and better at acquiring this kind of detail-oriented, very specified, detailed information about neural function and the tools we've used are novel but becoming, being picked up gradually by people all over the world as being, as we have worked year after year, showing the stability and reproducibility of networks in the brain and truly their value is the concomitance. They don't exist in isolation but that these networks are very detailed mediators of people's behavior. So in the case of normal, we know a lot about normal function of neural networks so say with motor learning, for example, can really predict if we know those networks from one population, they can be inferred in subsequent populations to a degree that you could predict people's learning performance very accurately. In fact, it's scary to think that half of all learning among people picked at random could be predicted on a case by case basis, based on a hard wiring concept of the brain, derived from the study of another population. So nature-nurture issues…

650

Scherr So where does genetics come into this?

Eidelberg Well, very relevant to this because the genetics – we found by studying movement disorders that there were people who carry genes for different disorders and an interesting feature of movement disorders, as a proxy for nerve degeneration, that's not just Parkinson's Disease but Parkinson's

Disease is one of the best models for this. There are people who carry the genes but don't get the disease and particularly in the case of the disease

700 called Dystonia which is a relative to Parkinsonism but a younger population and…

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Eidelberg Dystonia affects mainly Ashkenazic Jewish people and as an autosomal dominant with incomplete penetrance, that's in the lingo, that we figured one of the major applications of the networks was to use it to study the clinically normal relatives of people who were carrying the genes so these people have the gene but don't get the disease and we found that they were carrying abnormal networks that were very similar to those in the people who had the disease itself and then we began to study their behavior and they were abnormal in the terms of their motor learning in particular. It is a relative of a motor disease and people were floating around in the world neurologically normal and the only thing to separate them from anyone else is that they may have a relative somewhere who has one of these diseases but they themselves, they don't know necessarily their mutation status. Do they carry this abnormal gene or not? And all the this gene is is one base pair deletion and one restricted piece of one chromosome but that's enough to alter the whole way the brain is functioning, so whereby the normal network is very predictive of behavior, not just in other normal people but it predicts behavior in the case of people with Parkinson's because they've lived sixty, sixty-five years before they got that. So their brains have developed normally. In

Dystonia, this is a genetic disease; they're using other neural networks that are quite primitive.

Scherr Are you working with Peter Gregersen?

Eidelberg Yes. He's taught me a lot about genetic diseases and how to think. We have some collaborations that involve using. Once we know that there were networks, we began going backward. We're funded by NIH for this now – to look at populations that have these diseases where the gene is not known so having to wait long periods of time to get samples from affected people is quite tedious and difficult but if you have whole families, it boosts the amount of…

Scherr Well, Peter has 100,000 specimens or so?

Eidelberg We're actually still looking at small cohorts to see if this works but the notion is that the networks can help you identify genes in populations. In other words, you can use that as a marker behaviorally potentially or by PET and use that knowledge to inform the geneticist on whether the person is likely to have that bit of DNA or not.

Scherr You won a recent award, did you not, through the Parkinson's Association? A major award; you had won a number of awards, if I recall.

Eidelberg Yes. As a junior person, yes, that helped pay the bills for a few years way, way back which is important because, you know, it was good. It kept me out of the clinic just enough to do my work but this year I was awarded the Fred Springer Award by the American Parkinson's Disease Association. I think I am maybe the fourteenth or fifteenth person to win this and I think of the prior recipients, four or five have passed on already. So, I hope it's not a statement

of my own actuarial chances but one went on to win the Nobel Prize and there are a bunch of people who are in the National Academy and two are FRS's and the other are National Academy People; I am delighted to have been thought of for this award.

Scherr Congratulations. It's wonderful.

Eidelberg Well, I told this to Steve Kamholz[3] at the time and to Nick Chiorazzi that it's more of a statement about North Shore than about me and I mean that honestly. I mean to some degree of course, look you had to be willing to work doing this stuff for fifteen years to get to this point. On the other hand, it had

050 a lot to do with North Shore – North Shore-LIJ these days – in terms of creating an environment that was fertile enough to allow a person to pursue an idea and the way people get things done in science I think, is this kind of dogged pursuit year by year and these spin-offs like: one idea about networks and Parkinsonism which we're by the way, applying now to gene therapy so it's looking very, very exciting, using this kind of approach many years later no one would have thought and yet we are able now to look at in monkeys and now in human beings the recipients of gene therapy.

Scherr Well, that's one of the advantages of an institute because in a Department of Research, people were basically doing their independent activities. In an institute, there is more of a collaborative cooperative way to build one upon the other.

Eidelberg The Institute also is a rebirth I think, for some of us, from a professional standpoint. It is a new set of challenges to create this thing and of course, there is the Board and the donors and so on. But this time, it's up to us. I

[3] Chairman of the Department of Medicine, North Shore University Hospital.

mean Nick, and now Kevin Tracey, but ultimately it's up to a small group of people to fashion this Institute in a way that will serve science better and actually push things along here because it's almost as if we had achieved everything we possibly could have within that research department context. There were people who were lucky enough to be in financially very supportive Departments, I think when Peter came and you looked after him for many years and allowed him to grow. Some Departments were not interested in Research. People who had resources but weren't interested in research and there were other smaller Departments that just had their own problems financially; they liked research but couldn't afford it. The mechanism that was in place for many years was good; it allowed there to be a pool of money to go into the Research Department and to keep things going. The problem I guess in the end was with the merger; there was a need to move it along to the next level. I mean now there was no need to worry about medical schools, no need to worry about our own reputation that much because it existed. The first ten years went to that, the first ten, twelve years to make this place, everyone knows what North Shore is. You don't have to explain to people, let alone to very patronizing people who know what it is. And they make you…

Scherr Well, they don't patronize any more. That era has pretty much gone.

Eidelberg I found pockets of it with Herb Pardis by the way. You can expunge that from the record but you'd be surprised. But anyway, all things considered, we don't need that but what we do need is a philosophy of where we're taking the science because it's a different kind of science than you would see in an

academic department and I feel very comfortable with that type of…I kind of grew out of the mentality "well it had to be something that suited the departmental needs and so on and the view of the Chairman". Eventually, you realize it's your view but it has got to be something that contributes positively to society and also has to contribute positively to the community of people who support this which is the North Shore-LIJ Health System, that this has to do something useful and by useful I don't mean necessarily commercialization, although that's nice if you can get it.

Scherr Well, it helps.

Eidelberg It helps, it's a good thing but I think what's useful is just a stellar track record of good academic achievement, people staying on track, doing the things they do well and trying to get resources, either federal or foundation or even within the institution to push an agenda forward. They have to have belief in their own ideas and to have the confidence to sort of say, "I want to bring this to the next level".

Scherr I think that what you just said is what Picower didn't have which is why they ultimately dissolved. I really do.

Eidelberg Well, they were very homogenized by Tony's vision. It had to be the way he

100 looked at it and ultimately if not his scientific vision, then the financial concerns of his supporters. When that didn't work out, then there was nothing to hold people together. These days, it's arguable. I mean you look at our Institute; there are fiefdoms created where there are people who are established investigators who have laboratories and they attract people. That's the way it is in any university setting. And they're attracted by the

view scientifically of whoever runs the laboratory or the Center head but people are attracted also by the idea of being part of an evolving scientific entity. So people who are post-docs still want to come; they don't understand an Institute. That doesn't mean much to them but what they understand is they come and work in an environment like this. Their careers can develop, they can move ahead, if they want to stay that could be considered very good.

Scherr It's more difficult to attract post-docs in this setting. That's where a medical school has an advantage.

Eidelberg You know, I would say even less so than…we're doing okay. Yes, I agree but it's not a *sine qua non* for it. I look at what we have now. We have a very good junior faculty from Germany and she came as a fellow and she's from Berlin; she's outstanding. We have another German guy from Magdeburg who is here for two years; he's a true post-doc but he could be faculty anywhere and they go back to Europe. We've had people from Kyoto University in Japan, the MD/PhD fellow we have now is great and I have a girl who is Chinese but I have to say the political incorrectness will now resound for fifty years but she's from the Karolinska Institute in Sweden where she did a doctorate and these are people who are coming here that we didn't have to work too hard to convince.

Scherr How'd they find out about us?

Eidelberg I was going to say that they find out by some of my ex-professors and people who know me and they say, "If you want to do this kind of thing, here's a place. Call up this guy or e-mail this guy." And they come. They've already been told ahead of time that this is a good place. I don't have to do much

marketing any more. In fact I don't remember having to market us to prospective investigators for a long time. It's probably been since the late '90's. People want to come. They understand that this is a developed place; that they have career opportunities. Their own success is not having been at Cornell or having been wherever the heck they would have seen themselves. Their success has to do with them and they know that they come to work…

Scherr And what they can achieve

Eidelberg and what they can achieve, and they know that people who come to me in spite of their own unwillingness often are forced to be academically productive and they all go on to excellent jobs and we keep a few we view as especially good.

Scherr Project ahead now. There'll be 55,000 square feet more in that building so there's room for new investigators. You're one of the four major Centers for Excellence and the key investigators; it's you, it's Peter, it's Nick, it's Bettie, it's John Kane, it's obviously Kevin Tracey. That is the nucleus of the Research establishment plus a group of very bright people that work with you all on it. As you look ahead to the year 2015, ten years hence, using as a

150 comparison, 1995, ten years behind on this, how do you see the Research Institute? I'll give you at least some facts. The Health System will still be healthy in 2015. It will probably be a little different shape and probably be a little larger and clinically it'll have established its excellence but the research establishment. How do you envision it ten years from now?

Eidelberg That's a fabulous question and to say that in 1995, the biggest shock would have been in 1988 to ask me what 1995 would look like because I never could

have imagined that I'd still be having a job that would allow me to do research at that point. Looking at 1995 to 2005, I never could have imagined that there would be a merger and that there would be an Institute and actually, I look back at those years that I think a contribution I feel good about was having helped in the creation of that Institute because it was David Dantzker who introduced me to Leonard Feinstein who is a man who had not given very much to science at that point and we established a relationship and it was after the merger but before there was an institute. The Neuroscience Center may truly have been the only entity that preceded the Research Institute's formation.

Scherr Yes it did. You're absolutely correct.

Eidelberg And Mr. Feinstein, Susan and Leonard are terrific people and I believe that it was by making them feel good about their donations in neuroscience that encouraged them to move forward and support the Institute and that is a quantum leap in the Institute that two or three years ago I wouldn't have imagined would have happened just with the current financial picture, that it would be very difficult for them to build a new building and to look at attracting some new research units that could be important to the entity. Where it would go from here is anyone's guess, actually. It was sort of, I was always told, that intelligent people never make predictions beyond five years. It's just almost impossible. I mean, Jefferson predicted the Civil War roughly within two or three years but those are unusual degree of genius. I think where we will be in ten years has a lot to do with the demographic shifts that are occurring in this area of this country and that sounds rather prosaic but

it's, I think meaningful because just the development of North Shore, you probably recognized Larry, before anyone else that the demographics were in favor of developing a competitive health care system and university hospital out here just because of the way people were moving, made some sense.

Scherr The population has aged faster than I thought in this county. It aged very rapidly and the same will happen in good parts of Suffolk.

Eidelberg With that said though, there could be a major relocation of people out of New York City proper depending on many different things. You know, the tax base of New York City is not what it was and a lot of the aging people, it's hit them too. They have younger people who work in financial industry, make a lot of money but they're transiently there. These are not lifetime people who will – they supply the City with a lot money but not nearly enough to support the aging infrastructure of the medical community of New York. I mean the

200 private hospitals are in trouble. They're actually still rather small, have never grown like Lenox Hill, excellent hospital but just never grew. Presbyterian's been at the precipice of failure for at least twelve years.

Scherr And has had continued difficulty, you are correct.

Eidelberg Yes, continued and remarkable only in that they haven't finally tanked and that's because of how old they are. The President of Columbia University, several presidents have been eager to divest themselves of that whole thing and hand it over to…

Scherr Well Princeton was very smart…

Eidelberg By never doing it.

Scherr They never had a medical school

Eidelberg Well Cornell Medical School was sort of their friend in New York so anyone who needed to train in medicine…their cleverest graduates didn't go into medicine but those who chose that could go to Cornell and be trained and they had a nice club system there to support the recreational needs of their graduates but we're…I think that we're going to look at a contraction of health care delivery in New York coincident probably with the movement of major financial industry and probably also service industries.

Scherr And scientific industries.

Eidelberg Well, science follows suit, I was just at Stanford last week and that's exactly what happened there. San Francisco, which has good medical infrastructure still the disgorgement of people into Palo Alto, Menlo Park and all that for Stanford to raise money and develop itself in spite of…it was a small clinical medical school…

Scherr That's right.

Eidelberg …that was forced to step up to the plate and they still don't know how to do it. They're asking me how to…that's a bad situation if someone asks me how to run their Neurology Department or develop money for neurosciences. So I think that North Shore will, I would predict that it will grow and it may grow a lot more than people imagine in that the models that exist for research out of the universities are becoming very popular so scientists may begin flocking to institutions like North Shore more and more because there is some money there, at least a perception of that and there's also lack of a perceived need to be associated with a medical school or even a university. That's viewed in some ways as a deterrent in terms of intellectual property acquisitions. People

who can, Stanford is a great example but a lot of people left that university to create Biotech Industry.

Scherr Yes, the whole area.

Eidelberg To varying degrees of success, I mean not all them became wealthy.

Scherr Well, you know this area has got a very large immigrant population. Some of it's affluent and a lot of it isn't. The Latino group is not; the Asian group is more affluent.

Eidelberg I think though, the success, that's right. There is no perfect, you know I think maybe Olmstead County in Rochester, Minnesota is the only one where you've got a very homogeneous non-indigent, and then you have more doctors per [mile?] by artifact, but that's what it is.

Scherr But the agrarian culture is gone from Long Island and in ten or so years it'll be even more so.

Eidelberg But I think if one could just guess, there will be a replacement of the agrarian culture, not by indigent laborers but by highly professionalized, educated

250 people who actually like upper Westchester and Putnam County, they do their business from home, they're not like us, where we have to take care of people directly. A lot of their activities do not require anything other than a periodic meeting in a hotel somewhere with clients. I think as telecommunications develop, that's going to be even more the case where people will be functioning in their communities and there will be an appeal by the way, to agrarianized ex-burbs where people like living in the country. They don't want to be involved in the urban glut and so on.

Scherr There isn't much land left, not even on Long Island.

Eidelberg But that means the property will just keep on escalating in value and I think that…

Scherr That's what happened. Is that a problem in recruiting people right now? Where they live?

Eidelberg It is but it's the same problem that exists with all the major universities. We're not unique. I'm a good person to ask because we have people who come here who really require housing and I've been amazed at how proficient we've helped people, not financially but putting them where they need to be and that there's enough affordable housing at this moment around here, even in Port Washington and Queens, some of them like living there. It's not so bad. As time goes on we may need to develop some form of, I mean, that's a big decision to make.

Scherr We will undoubtedly need to have some affordable housing related to our campuses.

Eidelberg Yes, but it will never be enough to fill the needs, particularly it's circular. When the housing begins, more people come. It fills up; you need more. If you talk to the Cornell people, I mean they're now looking at developing housing on Roosevelt Island for graduate school people.

Scherr Well, they have the syndrome of being in the middle of Manhattan. That's a tough one.

Eidelberg Well, that kills them. We're not there yet where it's a constant in your face problem but it will be within – you asked about ten years – but that's actually a problem you want to have.

Scherr You're going to be doing this in a decade. You're right there. You've got a

burgeoning Institute for Medical Research, you've got strong support, your research is going admirably and very productively for it and you're at a Health System that's moving along rapidly.

Eidelberg Well I am very, I mean grateful sounds a little maudlin but it was a very unusual opportunity that presented itself in 1988 and I could not believe at all that I'd be sitting in a chair with you under these circumstances seventeen years later.

Scherr Don't forget Neurology was once part of Medicine, before you came I spun it off and created a Department out of it.

Eidelberg I don't know whether that's a good thing. Neurology typically is its own Department but as time goes on and the reimbursements, if they're still in the

300 bad trend that they are, I can envision it rolling back into larger, in fact the Departments per se are not as critical as once they were.

Scherr No, they turned into service lines and the service line you're talking about is Neuroscience and it combines many things together. That's what will happen.

Eidelberg Well, we're seeing that now in the movement disorders clinical program which we haven't spoken about. That was also another triumph that we used the research strength in Parkinson's and Movement Disorders to develop a clinical program

Scherr But you're going to have new knowledge and new information about movement disorders and that'll change the whole treatment modalities and change the nature of a disease.

Eidelberg Absolutely. And in pragmatic terms, this new service line concept in neuroscience allowed us to bring in a couple of very good younger people,

one guy from Presbyterian, Mike Pourfar who is a DBS, he's Electro-physiology DBS neurologist, very good guy and we brought him in. He has a joint appointment in Medicine and in Neurology. In my unit, most people now have joint appointments in Medicine.

Scherr You are aware of the move to put the Neurosciences together into a collective and to name it the Cushing Neurosciences?

Eidelberg Yes, Tom Milhorat. Yes, I think…As long as people continue…whatever mechanism it takes to keep the thing growing to I think the level of success at this point, I don't mean to be too arrogant, it's just that such that we are really able to name our applicants, to pick people we like and who are way more often than not very successful after coming here…

Scherr That's the only way to stay successful

Eidelberg And that we get much better people…

Scherr Otherwise you won't be successful…

Eidelberg Well, they'll run you down…You will regress to the mean very quickly. It's good but it can be better and I think a lot of it as I say, as I think back on the one indicator, it's the demographics and if the demographics continue to move out of the urban centers toward what we view as suburbs but ultimately they would be commuting ex-burbs in Suffolk County

Scherr They're ex-burbs, they're not suburbs anymore. They don't act as suburbs.

Eidelberg Suburbs still meant that your community hospital was there but you took your serious health care to the ex-burb. People are not. They're coming here to a more centrally located area.

Scherr But that took time to develop.

Eidelberg No, it was actually, I will say, I mean I think you personally understood that and when I came here, all I thought about was PET imaging and Parkinson's and having been here for eighteen years, it gave me time to think about other things like how did this place get to be what it is? It's quite a remarkable thing.

Scherr It is a very interesting story. You may have a question or two, Dan to finish up.

Eidelberg It should be on NPR, don't you think?

Sokolow You talked about the question of reputation and actually not really needing to recruit or actually market anymore. Do you think that's across the board or can that kind of depend on the investigative area?

Eidelberg I mean I qualified the earlier statement. We don't have to beg people

350 anymore or give them very unusual carrots to come and work here. We're competitive but we don't have to literally do a very hard sell and it is spotty in answer to your question. I think, as a collective entity, this is hardly a universal situation. I think Radiology had always had its pick of very good applicants, you know, just by its definition and being in a place where people want to practice and for financial reasons but the more academically oriented services of Medicine, Neurology, Psychiatry; some of these have had their issues because the very good ones like cardiology right now, they get superb from what I gather, very excellent fellows. On the research end I like to think we're doing pretty well but that's probably not true universally in the Research Institute but when we look around at other Departments I think their match lists, although better probably than they are after the merger, they're

still anemic; there's still a long way to go before it really gets to the point that people can name their own match lists.

Scherr We are a distance from that in places.

Eidelberg Oh, I think so.

Scherr I agree with you.

Sokolow One other question. You talked about it a little bit, I wondered if you'd go into a little more detail on benefits or liabilities for your research of having this clinical establishment right there and kind of a ready supply of patients if you need them.

Eidelberg Well, that's a tough one. There was no pro or con. For us it was a sink or swim. We had to develop the patient base to do the imaging and since we were all clinicians we had to, another way of phrasing the question, we had to deliver the services to people that would otherwise have to be in New York City so there's a tacit agreement that was made with the community that you wouldn't have to go into Manhattan to be involved in new drug trials and to get expert neurological care, Parkinson's Disease care but in return, we asked for participation in studies. That worked. People loved that. They just did not want, under any circumstance to have to go to 168th Street and we also had to be careful with the practitioners in the community here because they certainly are contributing to the health and well-being of how the health care system they had met and they have their needs and we couldn't be perceived of as stealing patients from them and many of these people are superb clinicians but they're not academically inclined in the least. I mean in fact probably they have an antipathy toward it some.

Scherr They just don't have the resources to do it.

Eidelberg Well, they do not have the training or the instincts or the…

Scherr That's part of the resources.

Eidelberg That said, we were able, we made it our business to make them comfortable with sending us referrals and if they participated in research, the patients always came back to them. We did a lot of support things for them to keep patients in their practices and we made sure that we had our own referral basis that were not pilfering from the practitioners and if I were to give advice to anyone setting up new practices here in-house, the best would be to come up with a modus vivendi with the practitioners in the field because they can kill you. They would never get a referral and that said, make certain that you're delivering something. It's almost like a treaty with the community here, that you have to give them something in return for their participation in research.

Scherr Well, there's a benefit to it. If there's a prestigious Department or a prestigious institution, their practices grow by the very nature of it. That's not always easy to see in the beginning. They see it when it actually occurs later. But that's the true benefit which is why they would want to support your work.

Eidelberg The enlightened ones are like… I'll tell you, in the end, looking back after fifteen years, it's the same us and it's the same practitioners. We are all roughly the same age and we have a very fine working arrangement. Some of the anxieties that existed at the beginning were, I think we were all untutored in how to do this and looking back, I can remember a number of missteps that I made with them but I think we recovered and there was always this concept

and I tell this to everyone who's involved with me in the clinical arena that just be certain that you're delivering to these patients, something that they feel they're benefiting from but also make sure that you're mitigating the anxieties of the local community doctors.

Scherr It's called communication.

Eidelberg Yes, well you call them. "Thank you for the courtesy of this referral." You know, old New York City methods work well.

Scherr That method works all the time.

Eidelberg I call them, I tell my fellows to call, say "thank you", you know, a type-written note and what they cannot stand is that someone showed up there and that they didn't know that they were going; many patients are embarrassed to tell their doctor they're getting a second opinion. They didn't know and then it just escalates. So I hope that answers…

Scherr Well, it's a good answer to a good question. Anything else you would like to add, David?

Eidelberg No, I think this was a lot of fun.

Scherr You've been excellent.

Eidelberg Thank you. No, I'm glad you are doing this. I think this is…I hope it doesn't have to wait fifty years for another person to listen to. We'll all be in some other place.

Scherr You're going to get something that looks like this in about ten days or so.

Eidelberg Well, I hope I don't have a time line to get it back to you. You'll tell me how quickly…

Scherr It won't be a lot to do. There may be some phraseology you will want to deal

with.

END OF INTERVIEW

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