

**National Cancer Institute  
Interview with Paul Marks  
Conducted on July 14, 1999, by Gretchen Case  
in the Office of Dr. Marks at Memorial Sloan-Kettering**

**PM:** My name is Paul Marks.

**GC:** Today is July 14, 1999. This is Gretchen Case, talking with Dr. Paul Marks in his office in New York City at Memorial Sloan-Kettering. What I'm really interested in is your role in the National Cancer Institute's history, and I was interested to learn why you chose to become involved with the National Cancer Institute. Do you remember a particular reason you became involved?

**PM:** Yes. Very specifically. When the legislation was passed in, I guess, 1972, the National Cancer Act establishing the National Cancer Program, I frankly was very concerned that it would distort the funding for biomedical research. I felt that a most important area for funding was basic research. By definition this couldn't be defined as cancer research or heart research or diabetes, but fundamental investigations into human biology or mammalian biology or even lower forms [of life] was extremely important and had to go forward if we were really to understand and make progress in the cancer problem.

So, I wrote a long letter—after a lot of thought and consultation with my seniors—to Benno Schmidt, who was then chairman of the committee making recommendations with regard to the legislation and then its implementation, expressing my concern that this might distort the pattern of funding and have a particularly adverse effect on medical schools, which were a

major site of basic biomedical research. Much to my surprise, I got an answer, and he invited me to come to Washington and meet with him and the then head of the National Cancer Institute.

The next thing . . . the next involvement I had was that . . . I don't know who requested it, but the National Academy of Sciences was requested to set up a committee to evaluate the National Cancer Act and its implementation, and I was invited to be a member of that committee as a member of the Academy. The committee was chaired by Lew Thomas and it had . . . I remember George Palade was on it, David Baltimore was on it. It was a terrific committee. We went about our mandate and that included an extensive interview with Benno Schmidt by the committee. And so, you know, through that I got more involved, if you will, in the National Cancer Program, and then I was invited to become a member of the National Cancer Panel.

**GC:** Right. The President's Cancer Panel?

**PM:** The President's Cancer Panel. This was a three-person panel, chaired by Benno Schmidt at the time. I think it met monthly, and then it met four more times a year with the National Cancer Advisory Board as a whole. I was on that for three years—I think from something like '76 to '79.

**GC:** That's what your CV says.

**PM:** Yes. And in the meantime, back at the ranch, my own research, which had been focused on, if you will, the molecular biology of globin gene, hemoglobin synthesis, globin gene expression, and so on, and I got involved in looking at a model system, which had originally been described by Charlotte Friend, a virus transformed murine erythroleukemia cell system which, when exposed to dimethyl sulfoxide, induced hemoglobin formation. So I thought this might be a good model to further explore how the globin gene was regulated.

In fact, what happened over a period of my research was that I got more and more involved in the molecular and cellular aspects of transformation and the block in normal differentiation of these cells. My research really became focused on understanding some of what went wrong in these cells and also why dimethyl sulfoxide induced the cells to differentiate and die like their normal counterpart. So, I was, you know, fully committed to cancer, to research that was related to the cancer problem by the middle of the '70s.

Also at that time I was vice-president of the Health Sciences at Columbia University and we developed a Cancer Center. I became head of that Cancer Center. We got a large grant from the government to build a building and to run our Comprehensive Cancer Center at Columbia Presbyterian. In 1980 I was offered this position and came here.

**GC:** And this is also a Comprehensive Cancer Center.

**PM:** Memorial Sloan Kettering was one of the models used in the legislation to establish the characteristics of Comprehensive Cancer Centers. Memorial is unique in the sense that it is

the only free-standing, not-for-profit, nongovernmental Comprehensive Cancer Center in the United States.

**GC:** Is that right?

**PM:** That's right.

**GC:** Can you go back for just a minute and tell me about that first meeting with Benno Schmidt? So you didn't know him previously?

**PM:** No.

**GC:** When you wrote the letter to him?

**PM:** No.

**GC:** You just knew that he was in charge of . . .

**PM:** Yes. Through the newspapers, scientific magazines, and so on. I also didn't really even know at the time what he did. He just was, he *is*, an incredible person. We were fortunate that Benno Schmidt was head of this commission and then was the first chairman of the President's Cancer Panel, because for a lay person, he had an *unusual* understanding of the needs of basic research and the importance of basic research to making progress in the

cancer problem. I think his leadership was providential. I think it was key to the success of the whole cancer, the National Cancer Program. I might also say that, in the spirit of full disclosure, he was vice-chairman of the board at Memorial Sloan-Kettering at the time I was offered the position here.

You know, it's sort of curious that this letter which I wrote after much [laughs] struggling with myself—"Do I do it? Don't I do it?" I didn't know whether it would be a waste of time, but on the other hand I didn't want to sort of *antagonize* these people further, whoever they were, by being critical of what could potentially be a source of increased funding for biomedical research.

I have gotten to know Benno Schmidt pretty well through that first encounter and then subsequently with the Academy committee and then being on the Panel. He had recommended me for this position [president of Memorial Sloan-Kettering Cancer Center] to the then-chairman of the board, who was Laurence Rockefeller. Laurence Rockefeller was the one who called me and invited me here and in this very room offered me the position in 1980.

**GC:** Is that right?

**PM:** That's right. This has always been the president's office. Actually, the job I was offered was a new position—as president of Memorial Sloan-Kettering Cancer Center as a unified Center. Memorial Sloan-Kettering, I think, *is* a very important element in the National

Cancer Program. Prior to 1980, the Memorial Hospital and the Sloan-Kettering Institute were separate corporations, separately administered.

That was sort of historically interesting in this sense: The founders of the Sloan-Kettering Institute, who were Mr. Sloan, who was then CEO of General Motors, and Mr. Kettering, who was the chief inventor of things like the automatic starter and so on, felt that the research commitment in cancer should be separate from the clinical care, which was just the opposite of what Mr. John D. Rockefeller, Jr., who was one of the founding fathers of Memorial, believed. He believed that . . . in fact, his whole support for what was originally New York City Cancer Hospital and then renamed the Memorial Hospital was based on the fact that he felt that the best care in cancer required an environment in which research and teaching went forward.

And then Sloan and Kettering come along and split out the research. That was in the late '40s. It wasn't until 1980, Mr. Sloan had passed away and Mr. Laurence Rockefeller, John D.'s son, as chairman of the board, brought these entities together as a single operating Center.

**GC:** And that's right when you came in.

**PM:** That's when I came. I'm the first incumbent, if you will, of this office.

**GC:** Over both institutions.

**PM:** Over both institutions. Right. I think that the wisdom of sort of bringing together laboratory research and clinical care is really now bearing fruit in a major way in the cancer program. So that's a brief history of this place. The New York City Cancer Hospital was actually started in 1884.

**GC:** Really?

**PM:** Yes. And the original building still stands on Central Park West at 106th Street.

**GC:** What is it now? Do you know?

**PM:** It's a nursing home, I think. It's a Historic Landmark building and certainly, as the first cancer hospital in the United States, it should be part of the history of cancer.

**GC:** Yes. Absolutely.

**PM:** Our archives can probably produce some pictures of the original building. It wasn't until the '30s that it was moved to this site, because Mr. John D. Rockefeller, Jr. felt that, as I said, the best cancer care required research and teaching, and so he brought it into proximity with Rockefeller, then Institute and now University, and Cornell Medical School.

**GC:** Well, I'd like to go back just a little bit again and have you tell me about . . . you said the President's Cancer Panel met monthly?

**PM:** Yes.

**GC:** So would you fly to D.C. for those meetings?

**PM:** Well, if the weather was okay. [Laughs] We had a number of times during the winter, as you know, when the East Corridor gets pretty rough and you would wind up on the train. The meeting would be a day long. Benno Schmidt was a very involved chairman of the Panel. We worked closely with the NCI Directors. The Director when I first started was Arthur Upton, and then Vince DeVita. The whole budgetary process was one of the big issues that we would always have on our agenda.

And there's no question that Benno was an advocate and a very powerful advocate. He could pick up the phone and get the President at the other end, if he had to. And he didn't hesitate as an advocate with senators, particularly Kennedy, and others. He just was very strongly committed to funding the best possible research effort. He did have a profound understanding of what was required, and he commanded a lot of respect at both the White House and on the Hill. So he was very effective.

**GC:** Can you tell me a little bit about how you worked with the Directors? What kind of contact you had with them?

**PM:** Well, we would meet with them and members of their staff, as they would be required on the basis of the agenda. But the contact was really very close. And I would say that we



clearly had as our objective to be as supportive and facilitating as possible, as a non-government employees' panel and with Benno there as a very effective political force. We would review new initiatives and programs. I don't think we would try to second-guess scientific priorities as a member of the Panel. As members of a Panel, our major priority was to responsibly over-view the requested budget for the coming fiscal year and have some sense of what was being achieved with the current budget.

**GC:** But you didn't necessarily affect day-to-day operations.

**PM:** No.

**GC:** Or particular projects of scientists.

**PM:** No. At least I *hope* we didn't. During the 80's I was on the Council of the Therapeutics, Division of . . .

**GC:** Division of Cancer Treatment?

**PM:** Yes.

**GC:** The Board of Scientific Counselors?

**PM:** Yes. I was on that and that got more involved in programs, as you mentioned. I was always concerned about the effectiveness of the so-called screening programs for new agents. That was a particular area where I thought there had to be a better way, because this didn't seem to be as productive as it should be.

**GC:** That was a fairly controversial issue.

**PM:** Right. Right.

**GC:** How did you feel it could have been more productive and what did you see the problems . . .

**PM:** Well, I thought that a lot more thought and money could be invested in what is being done now, identifying specific targets for interfering with, or reversing the cancer process, rather than sort of non-mechanistic screening using a cell-based assay or, even more cumbersome, an animal-based assay for anti-cancer agents. I think we have some of that problem still.

**GC:** Really?

**PM:** Yes.

**GC:** Here?

**PM:** Hopefully not here, but in the NCI.

**GC:** In the NCI. You continue to be active with the NCI in different ways. I saw that you were on one of the committees for the Frederick Cancer Center.

**PM:** I was on the committee for the Frederick Cancer Center. And then I was a member of the Director of the NIH's Advisory [Board]. As a member of that committee, I was asked to co-chair a committee to review the structure of the NIH and each of its Institutes. We spent a fair amount of time looking at the National Cancer Institute; I think we developed a pretty good report and a set of recommendations. That was also a good committee. Mike Brown, Maxine Singer, Roy Vagelos, among others, were on that committee. A lot of the recommendations of the committee were implemented—particularly those with regard to more rigorous review of individual laboratories, and more of a uniform approach to appointment and promotion throughout the NIH and all the Institutes.

The thrust of a number of the recommendations was to try to improve the quality of the enterprise. I think a great deal *has happened* under Harold Varmus and Rick Klausner. The NIH and NCI, in my view, are substantially different and much better. They are getting higher quality recruitments. They are recruiting and promoting young people using rigorous standards of quality. They are more creative in the programs they are developing.

**GC:** Now you were also on the search committee that ended up hiring Dr. Klausner.

**PM:** Yes. I was chairman of that.

**GC:** You were the chairman of that. And how did you come to be on that committee?

**PM:** I believe Harold Varmus must have asked me to be chairman because I was on his Advisory Council.

**GC:** Do you remember what that process was like? Selecting a Director? Can you tell me about that?

**PM:** Yes. To the best of my ability to recall . . . the vice-president of Academic Affairs of Memorial Sloan-Kettering was the staff for the search if my memory is correct, but what we did was solicit very broadly names of possible candidates for the position. We went about getting documentation of every candidate, curriculum vitae, reprints, and information either in writing or verbally from colleagues familiar with a particular candidate. I forgot exactly how many we had, we must have had a hundred, plus or minus, names.

We put together this entire package, with all the backup material, and distributed it to all the members of the committee, who were all over the United States, and asked them to rank every name that had been submitted—to read the material carefully and rank each proposed candidate on a scale of one to four, one being the highest. I think we arranged it in such a way that the ranking was anonymous to the committee as a whole. In other words, each committee member was assigned a number by the head of the staff and what we received was, there were eight or nine members of the committee, each member's ranking of all candidates without attribution to a particular committee member.

Then we decided to have a meeting, which was here in New York, in which we would carefully consider in depth all the candidates who received ranking of "ones" and "twos." I forget how many that amounted to, but it was, say, twenty-plus. During the course of our deliberations, we reduced the number to five or six lead candidates. That afternoon a member of the committee who knew the individual best got on the phone—it was remarkable that it worked—and said, who we are: We're the committee to identify a possible head of the NCI, and you are on a very short list and we're calling to find out if you would be willing to consider the position.

And by that process and . . . the telephone conversations were long and some back and forth. During that process, three individuals withdrew. They said they, for personal reasons usually, didn't want to be considered and were not prepared to move to Washington for one or another important personal reason. At that point, we were left with three individuals, who we then—miracle of miracles—were able to arrange to interview in depth by phone.

We set up a loud speaker and the committee sat around the table and by the phone interviewed the three individuals. In terms of an efficient search, [laughs] it was unbelievable! And the most unbelievable thing is that everybody was available for the telephone conferences. By the end of the day—it was a long day, it was now, I think, after dinner—we had spent at least an hour or more with each of the three individuals. After the first few questions, it was like the person was in the room with the committee. We had told each candidate who was around the table if I asked the question, I would say, "This is Paul

Marks." And then ask my question. So he or she [the interviewee] knew who was asking the question and was answering their questions.

Then by evening we had pretty much come to rank ordering the three individuals. We were a presidential committee and our report was to be forwarded to the White House.

**GC:** Right. Because the Director is appointed by the President.

**PM:** Right. Our letter, which was drafted that night by one of the members of the committee . . . I don't know if this should be off the record, we had a lawyer on the committee who was one of the activists. She was terrific. By the end of the day she was ready to draft the letter to the President and wanted to say something to the effect "This is our recommendation and if you, for any reason, don't want to pursue this recommendation, please come back to us and we'll tell you who our number two choice is." I said, "How can you say to that to the President of the United States? We were mandated to give him no fewer than two and no more than three names. How can you . . ." She said [Marks pounds the table for emphasis] "We all feel this is the leading candidate—it was Rick Klausner— and that's the way it is."

So [laughs] I said, "I don't know if we can do this." But the committee decided yes, they liked the tone of the letter. It was *very* respectful but very firm. So we all signed it and that was it. I called Harold Varmus and told him the results of the deliberations and after a short silence he said, "Wow." [Laughs] And that went right ahead.

GC: That was great.

PM: Yes. I think that's the way all search committees should function!

GC: That's a great story about a search. That's a case study.

PM: Yes. And everybody felt good about it. That was it. I mean, it wasn't pushing anybody. It was a process that just went right along and there was consensus. We arrived at a consensus about each of the people on the first list of six and then we came back from our phone calls and reported to the committee as a whole. We then went on to focus on the three individuals and we set a conference call with each and the whole committee. It was a loudspeaker with the other person at the end of the phone and everybody could hear the questions and answers. It was very effective. I wish more of *our* searches went that way.

GC: Because you're in the midst of one right now?

PM: [Laughs] Yes. I'm going to have to go, unfortunately.

GC: Yes, I realize that.

PM: I really apologize for being late.

GC: That's no problem. Thank you for your time. I appreciate this.

PM: Right. Okay. Well, if other issues come up .



## INDEX

|                                                                    |                  |
|--------------------------------------------------------------------|------------------|
| Baltimore, David.....                                              | 2                |
| Brown, Mike .....                                                  | 11               |
| Cornell Medical School.....                                        | 7                |
| DeVita, Vincent T.....                                             | 8                |
| Frederick Cancer Center.....                                       | 11               |
| Friend virus.....                                                  | 3                |
| Kennedy, Senator Edward.....                                       | 8                |
| Klausner, Rick.....                                                | 11, 14           |
| Marks, Paul                                                        |                  |
| first meeting with Benno Schmidt.....                              | 4, 5             |
| head of Comprehensive Cancer Center, Columbia University.....      | 3                |
| involvement in National Cancer Program.....                        | 2, 5             |
| involvement in NCI's programs.....                                 | 10, 11           |
| member of NIH's Advisory Board.....                                | 11               |
| member of President's Cancer Panel.....                            | 2, 7-9           |
| member of search committee hiring Dr. Klausner.....                | 11-15            |
| on Council of the Therapeutics.....                                | 9                |
| President of Memorial Sloan-Kettering Cancer Center.....           | 3, 5-7           |
| research on molecular biology.....                                 | 3                |
| Vice-President of the Health Sciences, Columbia University.....    | 3                |
| Memorial Sloan-Kettering.....                                      | 1, 3, 5, 6, 12   |
| combining Memorial Hospital and the Sloan-Kettering Institute..... | 6                |
| Comprehensive Cancer Center.....                                   | 3-5              |
| history of.....                                                    | 5-7              |
| National Academy of Sciences.....                                  | 2                |
| National Cancer Act.....                                           | 1, 2             |
| National Cancer Advisory Board.....                                | 2                |
| National Cancer Institute.....                                     | 1, 2, 11         |
| National Institutes of Health.....                                 | 11               |
| New York City Cancer Hospital.....                                 | 6, 7             |
| Palade, George.....                                                | 2                |
| President's Cancer Panel.....                                      | 8, 9             |
| Rockefeller, John D., Jr.....                                      | 6, 7             |
| Rockefeller, Laurence.....                                         | 5, 6             |
| Schmidt, Benno.....                                                | 1, 2, 4, 5, 8, 9 |
| Singer, Maxine.....                                                | 11               |
| Thomas, Lew.....                                                   | 2                |
| Upton, Arthur.....                                                 | 8                |
| Vagelos, Roy.....                                                  | 11               |
| Varmus, Harold.....                                                | 11, 15           |