

GEORGETOWN UNIVERSITY

Joseph and Rose Kennedy Institute of Ethics

SUBJECTS: Bernadine Healy

DATE: September 2, 1992

INTERVIEWER: Robert Cook-Deegan

Q: The thing... I've got... My process to date has been largely, especially in this last chapter, which it where the most wallop still is. So, I've tried to triangulate from press sources and from talking to Jim and to other folks who were in the genome office. I've talked two or three times to Craig, although not anywhere near the same degree of details I have with Jim and (Norton Singer?) and folks like that. But there are several stories that are linked that I would like to be able to tease apart. And I'm very unclear first of all on when you first heard about the ESP thing. Essentially, from your point of view when did you get brought into it? I've got stuff up with Domenici ... in July of '91. But I didn't see much from your office on, it was mainly Craig and Reed, up until October when it broke as a controversy. I don't even know what broke that controversy, but I presume it was the *Times* story or something like that. So when you first heard about it, in kind of your version of what happened in the cascade of events after that.

Healy: Well, I believe it or not, I didn't really hear about it until sometime in September of 1991. And I could pinpoint it almost exactly, or you could pinpoint it almost exactly if you went back and found out the specific date, I think in September, when *Science* magazine covered the story of the patent filing and reported on . . . summer, in which the controversy was raised. It might have been the article talking about monkeys. . .

Q: No, Leslie (Roberts) didn't do that. She pulled that punch.

Healy: But it was in the September

Q: I don't remember what issue it was.

Healy: But it was an article that Leslie Roberts wrote, and I remember distinctly in a staff meeting someone said "By the way... by the way, you better know about something. There's a controversy brewing in the Human Genome Project and it's probably going to be in *Science* tomorrow (we get *Science* in on Friday). And I don't want you not to know about it in advance." And of course it wasn't very much in advance . . . story had been out for a while. And I was told briefly about the issue... and then it might have been next week, I was coming out of a hearing (you could find the date by knowing which hearing it was). I was coming out of a hearing, I don't know which one, and a Washington Post reporter came up to me and asked me a few questions about the hearing and quickly said "Well, what do you think about filing patents on gene fragments?" and this business about monkey DNA and I said

“well . . . tempest in the teapot. Let the process work. The patent system, they should determine whether something is patentable or not and not me, not the NIH. Let the system work, and some of this anger and hostility seems to be a tempest in a teapot.” And then I think he asked me what I thought about Watson’s comments and I said “Well, you know, he’s very blunt. He says what’s on his mind. Fine. He’s not speaking on behalf of the Genome Project. He can say whatever he wants . . . inappropriate things.” But one thing I found out quickly was that this was more than a tempest in a teapot, and I found that out after a few weeks or a month or so. I think sometime around that time I might have called Jim Watson and said “hey, what’s going on here? You better (?)” I was mildly irritated with the Human Genome program, mainly Jim Watson ...heads up. That this was of such importance to him. And I said... And of course he wasn’t here very much. There was Cold Spring Harbor and he wasn’t spending more than I think two days a month at NIH. I told him to get here as quickly as he could; I wanted to brief him so I would know exactly what this was all about. And it was sort of unfortunate I was hearing most of it through *Science* magazine and *Washington Post*.

So on the phone actually, I don’t remember the details and the exact timing, but the essence of the conversation was he thought (?) do it. The debate was inevitable. I said we should (?) the patents and he said “no, the debate’s inevitable. We have to live with it.” But he came in then sometime with Elke and others in the genome office and they suggested that he represent his views. And once again he said that he felt badly about... Actually the day we met was just about the same day the *Washington Post* article came out in which I’m quoted saying “tempest in the teapot” and some comments about Watson and Watson’s (?) remarks were quoted. And he felt badly about that.

And then I said to them “You can say whatever you want, but don’t speak for NIH. If you want to speak for Cold Spring Harbor, that’s fine, but remember, we don’t have policy on (?). And your (?) remarks are being (?)” And he agreed. He was actually very non-adversarial, very constructive meeting. Again he said that the debate on this was inevitable, that he had hoped it wouldn’t come up for another two years, but here it was, he was facing it, and he just didn’t like the fact that he had to face it now. We talked about whether or not we should pull the patents, and again, at that point . . . and it was sort of a mini-briefing. There was no venom or anger . . . monkey comments. . . The only thing that was substantive was that I began to realize from that meeting that there were passions here that I never really understood up until that time. “Wow, you really do feel passionately that this is a bad thing to do.” I remember him using an analogy of a PPR and that technology had the potential of getting into the wrong hands now. Someone could use powerful PPR for genetic testing and it’s so expensive and that patent should never have been awarded. They trusted the patent system. I was wrong to think the patent system could handle it. And I said “Well, what’s the alternative?” and he said “Well, we’re going to go right down to Congress and have Congress outlaw filing patents or changing patents on gene fragments. And I said “Well that would be fine but what about the rest of the world?” ... it doesn’t matter, you should still outlaw ... and well that would take a long time trying to get a bill passed . . .and he didn’t strike me as coming up with any immediate solutions. He was not advocating at that time for pulling the patents. He was really more just expressing his own anger and frustration that anybody would do something so unthinkable.

Q: I’ve never actually heard him advocate for pulling patents.

Healy: No I asked him if we should.

Q: Oh, I didn't know that.

Healy: He did not. And I asked for female (?) And then there was the question of NIH's model leadership. ... just get the whole thing out in the open, no surprises, in a responsible way. You know, it was a pretty reasonable conversation. The only thing that I remember about that meeting was one sort of thing of outrage towards Craig (?) personally. "This is an outrageous immoral act" that he had committed and somehow the NIH . . . And that was pretty much most of what I remember. Shortly thereafter, I don't know, a month or so later, ...

Q: Oh, for corporation?

Healy: No no no, this was a hearing on the genome project. (?) was there, I was there. Then we can go back and find... I mean, I have about twenty hearings last year so they all flow into one. And at that hearing we rode down in the car together. And at that time he was sort of getting ambivalent about whether to pull the patents. At that point he's saying "This is terrible, and I want you to take the high road" and pull the patents and not allow any more patents to be filed. And I said "Well, last time we met... you've changed." And he said "Well, none of my friends think we should do the patent." And I said "But I hear a lot of scientists who say that we should do the opposite." "Well, anybody who's a decent scientist is my friend and they're telling me... The rest don't matter. Any decent scientist is saying this and anybody who says the opposite ... " And interestingly, both at this meeting and at the previous meeting, I kept thinking "If this is such a hot issue for you, if this is something where you fly around the country and the world and, you know, colleagues are so upset, why the devil wouldn't you tell me about this back in six months ago when the patent was filed?" And he said "Well, I didn't know about it." Well I said "I understand you knew about it within two weeks of it being filed, and why didn't you tell me then?" "Um, because you wouldn't be facing this with us" ... wouldn't have the time to be schooled on this and you know, we could have worked together. He said ... "at the time they were filed, I thought it was such nonsense that they were filed, that I didn't think anybody would take it seriously. I didn't think it was going to be an issue." So even by his own admission early on, he didn't think this was more than a tempest in a teapot. He thought it was just a dumb thing to do, that no one would take (?). And it wasn't until I guess over the summer, something happened. And you probably know more than I do what happened. I guess there was a series of meetings in which people started to talk about this, and the more people talked about it, they kind of talked themselves into a frenzy. And from what I can tell, it wasn't a very constructive frenzy in terms of teasing out the elements of pro and con. It was almost an emotional frenzy. "Oh my God, someone's going to ..." this fast and dirty (?) job is going to mean that within a year's time, some second-rate scientist is going to own the whole human genome. And that just turned out to be a rather kind of biased distort and somewhat hysterical distort. But in any event, in the beginning Watson obviously did not think that (?), otherwise he clearly would have brought it to my attention. I still notice that it took me to go to him after I heard about his (?) to even find out that this was something troubling him. In any event, he clearly did sort of shift and by the time of that hearing he was now telling me that we should pull the patent. By that time, I had... was a little more informed about it and earlier on I wasn't in a position one way or the other. I was just listening and gathering

information. By that time I was inclined to say “would you file the patents?” and that was a pretty good reason for saying the question shouldn’t be answered. I mean, once you’ve filed the patents, you’ve raised the question. Then, what happens if we pull the patents back? If we pull the patents back, someone else will file the patents ... to resolve the important issue of the Human Genome Project ... So that was pretty much the beginning of it all.

Q: Just point of fact here, I think part of the dynamic early on was that they actually found out pretty early in the genome office inadvertently. I don’t know how, I think Elke or Mark (?) picked it up. But part of what was going on was, you probably know subsequently, was that there was a dynamic between Craig and the genome office.

Q: Traced back to Craig’s, I cover the history a little bit in here. I think it may be in the sections that you’ve got. There was a strong ambivalence, it was love-hate. It wasn’t all love or all hate, there was strong ambivalence on both sides

Healy: Actually one of the peculiar things about the debate that I found from the very beginning... anti-science... was a sense of “What was the politically correct way to do science?” And there was an emotional religious zeal that this is just not the right way to do (?) genes ... which was somehow quick and dirty. It was clean skinning and it wasn’t almost politically correct. It should be outlawed. Everybody should work the gene by gene approach. Now subsequently I found out that isn’t the case. I don’t think that in fact that was a statement that people believe. For whatever reason, I gather, Dr. Watson was not keen on the cDNA approach.

Q: Yeah, NIH policy, the genome office policy was interesting. It was crafted, I’ll just do a little aside here. The cDNA stuff was there at the very beginning of the genome...

Healy: Oh, that might be ...

Q: At the Cold Spring Harbor meeting in 1986, Wally Gilbert said what we should do first is pull out cDNA and start cataloging. Craig’s distinctive contribution to that was ...

...but the Brits had struck on the same strategy that the Japanese were following, that the French were following. So there was a lot of cDNA oriented stuff going on. In fact, there was an active debate within the U.S. within the genome office, there was a sense that that would happen of itself ... when David Galas came in, they had the same kind of “let’s do careful physical maps and then genetic linkage maps maybe” ... and David changed all of that and said “No, we’re going to also do cDNA. It’s not a whole lot of extra work and it allows you much quicker access to ...” I think that it wasn’t just genome, it was kind of a... It was Maynard Olsen and I don’t know who else, probably Maynard was the strongest opponent, but making sure that the map got done. There was a fear that as soon you start cDNA stuff, you’re going to start ... As soon as the Genome office got off this fixation on finishing the physical map, that everybody would be catalyzed by the biology and start doing individual genes and then the map was going to be...

Healy: Sure, but of course it was naïve at that time to think that science wouldn’t see that side of the

genome project ... the role of genetics in the world, by any means, but in fact Craig (?) was working ... it was logical, and the greatness of science, which is that everybody takes their own path out of the great door of science and sometimes get to the same place. But the fact is, that it was just antithetical for science to think that you would outlaw the path to discovery because, to modify behavior. It just doesn't make sense.

Q: Well, to the degree that they were (?), I don't know. I don't actually know what they were trying to do. Maynard, in his explication of this policy, which was assessed many times at the advisors' meeting, wasn't really so much as it shouldn't be done. It was that it should be done essentially the way that it worked out; it should be done outside the genome project.

Healy: Actually I've had several conversations with Maynard Olsen and he was extremely balanced, very sensible, very thoughtful. And he helped, in my own thinking through these issues.

Q: In fact, that's right. I caught Maynard right after he interviewed with you, which was right after Jim resigned, picked up a week after that. I caught him on an interview just the day after he flew into town.

Healy: Right, I had brought him in with a group of consultants to talk about

Q: Yeah, he's incredibly... "philosopher-king"

Healy: ... actually, I remember I brought in a group with Maynard and Paul Berg and Will Sharpe and others. And the expressed purpose was asking them their views on the future of the genome project. I had instituted a system with NIH which I hold my (?) where I bring in consultants to help me with specific issues. Behind closed doors, three or four hours, you can just hear their views, no tape recorders, no witnesses, nothing. It's just their opportunity to give me their private consultation on things. And it's not a constant committee, just individual consultants giving me their advice. And they don't vote; they're not a committee ... Fabulous. And Maynard Olsen was in that group. I KEEP the groups to no more than eight or nine. They meet alone, I rarely invite in staff, just me alone with these outside people, and it was fabulous.

Q: You know Roosevelt did something like that.

Healy: I'll tell you, it was fabulous.

Q: It's an incredibly powerful mechanism for cutting through. That's very interesting; I didn't know that you were doing that. I knew about this one with the genome, but I figured that was kind of crisis management.

Healy: Oh no no, I do those on a regular basis and they're fabulous. I usually do them. . . One of the greatneses of government is that, I really believe in the public having access to every bloody thing that we do. They pay for it, they should know it. They shouldn't be secretive. Government is dangerous when secretive. Committee meetings should be open ... that's going to vote and set policy and influence policy Public should know about it. But agency still needs to have the opportunity to speak and get private one-on-one information from people. Sometimes you're not going to get that information from public

(?). It was just so great. And we keep them, they are not voting, they are not having any influence except the power of explanation. It's information gathering, it's educational, it's wonderful. Each one has been great. And the fact that they are robust people. It's much better not to have them just one-on-one, it's better to have a group, because then you see the interplay, the "No, I disagree with you Maynard. No, no I think he's got it wrong." So I guess to see the spectrum is nice. But in any event, that Maynard Olsen type approach to this, if it had Maynard Olson in the center of this, I don't think it would have had quite the same hysteria that developed.

Q: That's right, Jim's style was...

Healy: His style was... A part of me finds that very attractive. I kind of like the prima donnas who can sing, as long as they can sing, and I kind of enjoy the iconoclasts and I enjoy the (?). But sometimes it gets over the line and you've got to rope it in. Put up with this ...

Q: I love that mechanism. I'm a policy junkie and that's very interesting. One of the other gaps, I don't want to keep you a lot longer, one of the other gaps is the cycle the (?) letter and the conflict of interest. How it worked in and all that.

Healy: Again, the dates, I'm going to have to reread my calendar. In essence, there's a critical piece of information which is, in one of my phone conversations with Jim, I kind of mildly scolded him. An early conversation around the time of the *Post* article. I kind of mildly scolded him. . . "You just can't do that. If you want to speak for Cold Spring Harbor, that's fine. But you've got to distinguish between the two. And that's difficult, but you're going to have to do it." And then he said "Ah, I must resign." And I said, "What are you going to resign for?" And he said, "Well, I disagree with you on this policy." He didn't have to resign on this policy issue. I said "We have policy disagreements all the time. I mean, that's how you move on to get the final good decision. I want to hear your disagreements, but you don't have to air them in public. Let's keep them private, it shouldn't be NIH war within. Help us get to the right decision. Don't resign." Now this was the second time that he wanted to resign, he had already been there a year. ... After one phone conversation I got him to agree he would not resign.

And the issue of resigning over this never came up with me personally, but I heard others say that he was running around the country attacking, saying he was going to resign over it, which never came back to me again, for whatever reason. But then, totally independent of this, and I don't know if his (?) remarks smoked people out of the woodwork to come attacking him, but people started bringing up his relationship with industry ... I got phone calls from people that I didn't even know ... And I knew nothing about his financial matters ... And in that letter, some pretty serious allegations were made about his relationship with industry, and they were also augmented by phone calls to me, actually more than one that described even more worrisome relationships that he was having with more than one company. And a lot of other allegations which ... I sent them downtown to the ethics office, because I don't deal with any of the financial disclosure ... we have a special office that does it. So I sent them downtown and they were really (?) over what to do about it ... and no one really knew about it. I didn't know about the relationships. And it was like peeling aside the pieces, the skin of an onion ... And over a period of about two or three months, it was brought to my attention and the departments attention that a whole range

of ... for which there was no approval, no authorization ... serious statements that dated back over a year ago. So this was a much bigger issue than I imagine anybody in the ... so at that point, the ethics office had a series of meetings with Watson about the options, the actions to lay down ... They kind of told me what was going on. The only way that I played a role, probably by coincidence, is that the options were that he divest of all his major holdings or that he ... and one option was that the ethics committee was going to prepare a stack of letters ... they wanted me to sign, which would say ... conflict of interest. And I refused to sign it. I said ... more than a year and not dealt with the ethics office ... He didn't want to do it. He tried to get Dr. Mason to sign it ... "I'm not gonna sign it." And that led to a stalemate that dragged on basically, you know, from bad to worse to the resignation of Jim Watson. It was an utter fabrication that that resignation had anything to do with cDNA, except that there was a reservoir of hostility, that Watson obviously felt was me, over the issue, which quite honestly I hadn't ... make these comments. But he did it about every one, I didn't think that they were sort of a grudge relationship

I have a personal belief that, right or wrong, the cDNA should ...

TAPE SIDE A ENDS

Healy: And I must say that I told ... "let it be known very clearly that if he wants to be stuck in a blind trust with the rest, I would love him to stay on" and I meant it. And it was not in my best interest to have him to resign, and I'd already argued him out of resigning at least twice before, and it was not in my interest to have him resign, to have him resign over any issue. I mean, the Human genome Project is bigger than Jim Watson, bigger than me. It was dumb for that to occur, it was dumb to take the hits that he took over it, and it was frankly duplicitous the way the whole thing came out and the way the spin was put on it for the purposes of covering up the real issue.

Q: One of the things that my reading is ... This is where the triangulation of doing contemporary history is very hard, my reading is that the dynamic was policy, and part of it was conflict of interest and part of it was (you've alluded to it) this reservoir of hostility. I think part of that was set up by the channels of communication. Essentially you were seen particularly... and it was also linked, I gather, to one of the other things that the folks in the genome office raised, Jim didn't really... And I mentioned it to him. He said "yeah that was an issue." Was that the dynamics that were going on in that period, the summer to late fall of last year, when you were really taking the reins at NIH. The strategic planning process was beginning and all that. And of course people were feeling unctuous anyway. And one of the dynamics that was set up during that period was "Who was the advisor on genome matters?" And one of the things that all of the folks at the genome office allude to is the decision on an intramural research program. I gather, I don't know if it was part of strategic planning or whatever, but there was a notion of having an intramural genome effort and that Craig became the main...

Healy: So that was another issue that often is the case with (?) and you never hear what people are thinking or saying because it never occurred to say it directly to me. You find a lot of it later or after the fact. But, Dr. Watson was almost obsessed with the notion that Craig (?) was my guru on the Human Genome Project, which was absurd. It's not true. The only time I ever dealt with Craig (?) was on cDNA

patent issues and I found what he was doing very interesting, very reasonable. But not the whole human genome program, this was a tiny piece of it. It was a technological approach to sequencing. It wasn't... and my notion of the human genome program is much vaster, much more powerful than the work in a laboratory. But there was one conversation that I had with (?) when I said "Why isn't this work in the human genome program? Why don't we have a better, an intramural presence in the human genome project? This was another part of my concern about revitalizing the intramural project. I had a conversation with Craig and a few others about how it was apparent to me that it was (?) somehow in genomic work on intramural program. It didn't have any kind of coordination or focus or presence within the broader (?) of the human genome program and I said, "Why don't you get together a group of scientists ... Why don't you put together an informal group and find out what the scientists on the campus wanted to do?" So he did give me some advice in the form of "What's going on here?" and "Who is working in this area?" And it was my understanding at the time that the intramural, that the human genome program wasn't really interested in an intramural program and in fact that that had been... I had been told that there had been attempts early on to get intramural program people involved and they were sort of spurned. And I guess I was reopening the question ... but I think Dr. Watson and people in the human genome program read enormous amount of things in that. I didn't understand that. In fact, to my utter amazement when Dr. Watson resigned, he assumed that I was going to put Craig (?) as head of the human genome project ... It never even crossed my mind! It never crossed my mind. And it wasn't something in my wildest dreams I would have done. First of all, it would have been foolish to put someone who was a lightning rod for so much controversy to head the program. But even beside that, I wanted somebody who was doing more mainstream human genetics, someone like a Michael (?) to hold things together. So there was a certain amount of paranoia about poor Dr. (?) and the fact that he was such a, that he was somehow having an influence that was detrimental to them. And that was just utter nonsense, utter nonsense. And interestingly enough, it was nothing that... Watson never came to me directly and said "Listen, let me give you advice." Watson never came to see me unless I called and asked him to see me, except in one case and it had nothing whatsoever to do with the human genome, it had to do with some gossipy nonsense in the scientific community, and he wanted to tell me about it. Never did he come in and say "This is my sense of the future. This is my sense of my role." He was never here. There would be months at a time when he was never on campus, so I think that because he was in the eye of the storm himself, he was worried about other people ... it was just nonsense.

Q: That's actually a nice segue to the other thing I wanted to touch on. And this is actually more of a call for personal comment. This is more for the tape than it is for historical data. But my reading on the dynamics ... This does happen. This happens all the time in Washington. Kind of, a wall gets put up between important figures who are making decisions that affect one another, and the channels of communication have to work around those walls ... don't know why the walls went up, but just the fact that the communication channels are so contaminated. And at that point it becomes gossip and it becomes a matter of...

Healy: Well, it becomes a self-fulfilling prophesy.

Q: Yeah

Healy: But you know in the beginning, the interesting thing was that Dr. Watson and I both made such an effort to be gracious to one another. I mean, it was obvious from the comments that he made about me years ago (and I hadn't met him) that I was just a woman. A terribly sexist comment, years ago. That he felt sheepish about this woman he had attacked.

Q: Yeah, this OSTP thing, right?

Healy: Yeah, that I was just (?) because I was just a woman.

Q: (?)

Healy: And it was in *Science* magazine and it was sort of embarrassing. But the fact is that it was a gratuitous insult, because he had never met me and he didn't know a thing about me. He probably wouldn't even know what I looked like, recognize me if he sat next to me on the subway. But the fact is, it was a gratuitous insult, it was a stupid thing to be done. He was embarrassed that he did it. He ended up writing me a letter of apology. Not actually, not me, but he wrote the letter of apology ... But, never the less, when I came to NIH, it was probably his biggest nightmare that this woman that he had gratuitously insulted in a very sexist way was going to be his boss, and that was sort of his first invitation to resign. And we were very gracious to each other and I said "That's nonsense. That awful remark, I had forgotten about it. I had more important things to deal with than that. We could work well together." At the first council meeting ... director talked about all the things we would be doing and I made a point of saying how much I enjoyed working with Dr. Watson ... And we had a very, very good working relationship. And there was no tension, as I say, except one time he came in just to tell me his concerns about some other issue. It had nothing to do with the human genome. It was some low-grade gossip about some other scientist. But never the less, there was goodwill in the relationship. I invited him to meet with a few dignitaries. I asked him to come and present the human genome. I sat with him in appropriations hearings. There was, granted, a certain amount of caution between us, but a reasonable working relationship. I mean, you know, one thing I've learned from my professional career: you don't have to love everybody you work with. You don't have to like them, but you have to work with a certain amount of dignity and restraint, and you can work with almost anyone. Now, that particularly true maybe when you're practicing medicine. You have to. If you're a surgeon, you can't say "I don't like the anesthesiologist." You have a bigger job to do. And science is the same thing. You're working with (?), you can't worry about personal (?). But I didn't sense anything. Maybe he thought there was, but I didn't sense anything, except when the cDNA thing ran. That's when things started to erode. And it took me a while to understand just how personal this was becoming. Of course, I didn't hear it directly. I heard it from (?), who comes back and says "Do you know what he said about you? Do you know what he said about your strategic plan? Do you know what he said about your performance? Do you know he said you should be this and you should be that, and you're a disaster?" So even then I was shocked, because I didn't think the cDNA issue was other than, at the time, an important issue that we needed to work on, and that there was no right, there was no wrong. It was just "Who know what the proper outcome could be?" And I had a very open mind on it. I had to do a lot of homework on it and go to school on it myself. I wasn't prepared to come down one way or the other on the issue. But it was a snowball, and it got wildly out of control, and sort of culminated with this unfortunate mix-up on (?) Now, there were

problems on his resignation related to cDNA, but in my mind...

Q: You know, the reason that I raised it, there were three. One was to get at the point that you already made which is: it was true, and he acknowledges as much and it's in the chapter, that it became very personal. He was, there was personal invective in what he was ...

Healy: And I never felt that towards him, I find him sort of a lovable, kind of a crusty lovable guy, despite the fact that he was gratuitously insulted me on numerous occasions. It just doesn't, it never phased me, because there's something about Jim Watson. He's sort of an icon. And I remember as a young medical student reading his book *The Double Helix* and being outraged at this man who did such unspeakable things and who was so cruel to Rosie Franklin. And I remember thinking just how terrible it was.

Q: That's how I first came to Jim's attention, was to ask him... You'll be amused by this. He didn't actually know me from (?). I talked to him at the genome, when I was doing the genome project. But I think I caught his attention because I was writing this book, I was at a conference with him and Wally Gilbert and Cantor and a few other folks. One of the early international conferences in Moscow, and I asked him point blank why... because at this point, I had actually... when I was an undergraduate, he was ... I was a chem major and I thought biology was (?) and Jim, I went to a couple of lectures of his and I thought he was incredibly arrogant.

Healy: ... but when we speak about science, when he would talk about some of the science in the human genome ...

Q: Well, the thing about him. I actually, I thought he was a jerk when I started working on the book. And I've actually come to admire him and I really like him a lot. He's become a good personal friend actually. And it's an odd relationship; I've never had one like this. He gave me a very interesting answer. I said "Why did you make yourself such an ogre in *The Double Helix*? Because, you have to understand that people coming to you for the first time, 90% of the people who meet you for the first time know you from *The Double Helix* as a very nasty person who is portrayed in *The Double Helix* as the most scummy character in the book, Jim Watson." And he gave me an answer that was just, I was totally unprepared for. He gave me a literary answer, which was: "The reason I did that was because I knew I was going to write a gossip book, and the only way I could make it credible and drive the drama was to make myself the most despicable character in the book, or I would be undermining my own..."

Healy: Well, getting away from likes or dislikes or personal venom or whether you love the guy or don't love the guy, there were some things in the book that were unconscionable in terms of theft of data, in terms of Xeroxing and stealing somebody's lab notes and using them as the basis, as the intellectually basis for giving the credibility to the theoretical model. I mean, that isn't just being an ogre. I mean, in fact he did what he admitted to doing, that is unconscionable and I think it was shocking to me as a medical student. Now, as I reflect on it, I don't find it any more palatable. But, for whatever reason, this man is a Teflon man. He gets away with unbelievable things, and you don't feel venom for it. I mean, I don't even. I mean, I have been personally attacked by this man unmercifully, and as a woman, I'm offended for Rosalind Franklin, I'm offended for myself to see this kind of cruel sexism. But nevertheless, there's something Teflon about the guy. There's something lovable, almost childlike, almost like he's a

naughty boy. And you, you tolerate it. And that's fine at a personal level. I mean, if Jim Watson walked in, I would... I don't have any venom towards the man. But, in the world of serious things, not in the world of gossipy drama of *The Double Helix* or the gossipy drama of... I mean, he does love to gossip ... when you're running a \$10 billion industry, you just can't put up with it. You have to push that aside.

Q: Another point that comes out in the chapter is that it was clear, he was actually, I think in the back of his mind, already on track to leave. He'd made a public statement...

Healy: Repeatedly, and again, I'm the last to know...

Q: So I think that the resignation episode, it was premature. He didn't want to resign when he did ... But there was another reason that I wanted to come back to that indirect communication stuff. Because Jim, when I asked him "What were the reasons that you quit?" One was the conflict of interest thing. And he said he was willing, although I don't know how it finally came out, but at least at one point in this ebbing and flowing of decision making, he was willing to dump the stocks, put them someplace else. He specified two other things. One was, and you've already gone over this, the Bork letter and the channels by which he found out about it, through Chris instead of from you. The third factor and he read that as an indirect way to get at him. The third fact was that he had heard through the grapevine, and I know who told him, and it's one of these gossip things where you can't close the loop, or else we're putting somebody who you talked to in an awkward position. But he had fairly reliable knowledge that you were trying to get rid of him.

Healy: And of course the person you're talking about is Danny Abrams. Which is totally absurd. I never talked to him about getting rid of Jim. That's just not the case. I talked to Dan about Dan talking to him and trying to calm him down. I told him that, I spoke to Dan shortly after I heard that he was saying outrageous things at meetings: that he was going to quit, that he was going to ... that strategic planning was terrible, that I was a disaster, the cDNA thing was destructive. And I said "Dan, we can't have somebody sitting in an NIH policy job, as visible as he is, doing these kinds of attacks. He needs to be disciplined. He will not survive if he continues with this kind of behavior." And he said "Well, talk to him." I said "I've already talked to him. I told him that he needs to separate ... that he cannot continue to attack NIH if he is going to stay on as a leader of NIH. And that if he wants to resign, he can't announce it in a meeting. He needs to come and see me. He's gonna have to learn to deal straight and he's gonna have to learn to deal disciplined when he's dealing with subjects that have to do with NIH. He can do whatever he wants with Cold Spring Harbor. He can do whatever he wants with his wife or his friends. When it comes to dealing with NIH, he's got to reserve a certain amount of self-control." And, in the conversation, Dan said "Well, I agree with you." Dan agreed that he was making terribly intemperate remarks and, actually, Dan was concerned that there was bad blood developing and, actually, Dan told me things that I didn't even know about, in terms of the degree of venom. In fact, I think that conversation with Dan Abrams was the one that showed me the extent to which there was personal hostility on Watson's part towards me. I really hadn't seen it get so personal until that time. Maybe it was in January. And I said "Well, Dan, why don't you talk to him?" I said "You're a friend of his. This guy's an icon." I said "He is not going to listen to me, and just calm him down." Well, I don't know if I used that word exactly, but that was the essence of it. "And you go to him and say 'Cool it.' He's got to control his

mouth. He's got to show some discipline. He's got to be a little more dignified and temperate in his remarks as it related to both NIH and to me." And Dan agreed with me. He agreed with me that his comments were... And he was worried that his comments were getting out of hand and that they were undermining the genome project, definitely undermining NIH and undermining me. Those were Dan's concerns, and some of it I have high regard for. I don't know him that well.

Q: . . .

Healy: Yeah, like at Hopkins. But, there was nothing like "I'm going to get rid of Jim Watson." First of all, if that was in my mind, I never would have told anyone anyway. That's not the kind of thing you say. You do it, but you don't say "I'm going to do it." But the conversation with Danny Abrams was really him telling me of the problem and my sort of going back and forth about what would be the most effect way...

Q: Okay, that's why I raised it.

Healy: Or maybe this guy (?). I mean, my hopes at the time was to get through this nonsense and to tamp it down. There was just entirely too much hysteria. And this was long before the Bork letter. I don't remember when it was. Maybe it was the same time as the Bork letter. Might have been extemporaneous. I knew I had these other problems that were going to surface. But I did not want, I never wanted Watson to resign. In fact, if I had wanted Watson to resign, I could have accepted his resignation in September. If I wanted Watson to resign, I could have called him up and said "Hey, I heard you announced to your council you're going to resign. Great. Resign." I mean, I had had no trouble doing that with other people who I felt needed to leave. I'd call them in and say, you know, "I want to have someone else in this position." No problem. I would have done it straight. I mean, I do not deal indirect. I deal straight. But the conversation with Dan Abrams was solely in the interest of helping me to calm this guy down. I had a vested interest at the time, I thought that NIH or the human genome program for me personally. "I don't want Jim Watson, who works for me, running around the country shooting at me, especially in the back. If he shoots me in the front, I can respond. I can affirm what I believe in." So that was sort of pivotal. And I guess that I heard later that... Watson told me that Dan Abrams had told him that I wanted him to resign. I was shocked. Either Dan twisted that conversation with Watson... That would not be something I would bring up to...

Q: Okay, well that is exactly the point that I was trying to loop back to. You had to clarify that. But those were the three things that he named as driving the resignation decision. And that's actually quite helpful for me. One thing that strikes me as we are talking is that this isn't going to be over when my book comes out. One thing, just for your information, is if you have files, stuff like that that you would like to have preserved, because I think that it's going to come up. Some historian down the road is going to go over the same territory that I went over and I'm not the ideal historian for this, because I was too close to it. So they are going to want to go through and look at the same documents that I looked at, but they're going to look at them through very different eyes. If there are documents that relate to this that it would be useful to save... I'll just give you plea to please send them over to the archives. It's going to be stuff like correspondence and notes from conversations and stuff like that. The sort of thing that

otherwise is going to get thrown out. The official records and all that go to ..., but it's the unofficial stuff that, having done this with person after person, it's very easy for that stuff to just get thrown out. So it's going to be revisited. Jim's resignation is going to be revisited.

Healy: Don't you think that too much is being made of Jim's resignation? The fact is he's a man...

Q: Well, you know, the thing is, and this is why... this book... It's impossible to avoid the issue, that's the thing.

Healy: But let's put it in a bigger context. I mean, you may be too close to Jim Watson.

Q: Yeah.

Healy: You are almost overwhelmed by his brightness. If you step back from this, Jim Watson did the job for (what was it?) three years. He gave it a great beginning. He brought a luster to it, he brought a stature to it, he brought a rigor to it. He brought visibility to it, a sense of importance to it. And he did it, as much as anything, by the goodwill value of his name. And what it meant to have an icon, the man who won the Nobel Prize for the double helix, become the head of the human genome program. And in a crass political way, he also won the battle with DOE, which was the battle that the NIH scientific community was waging. He did it, and he didn't even have to come to work to do it. And in fact, he didn't come to work much to do it, and he didn't have any hands-on management to speak of in the human genome program, except to do the council, to worry about what the researchers were doing in a very generic way. But he didn't worry about it in a sense of "What is the future of this program?" It was "What is the now of this program? How do we get it started?" He did that brilliantly. I think we owe a debt of gratitude to the fact that he did what needed to be done. But it was also obvious that he was fed up with it. I mean, this was not a man who puts into a bureaucracy. This is not a man who can put up with the garbage of conflict of interest. This is not a man who can... He's worried about the integrity of our people, but his was unassailable. The fact is, he could be outraged if somebody else had his own (?) but he knew how pure he was and he could never be contaminated by any (?) So there was that sense. Well, double standards like that don't exist, don't work, don't survive in government, like it or not. And it doesn't matter who you are, you have got to abide by the rules and the discipline that are inherent to an operation like the government.

Q: You're right in the sense that... In fact, in my reading I don't make a lot of the resignation think it's a tiny footnote. But I think there were two things where it matters. One is, it will be revisited, because you can't take the guy who discovered the... It's such a nice symmetry, historical symmetry, to have the guy who discovered the double helix to then leave the program that's called the human genome program. It's so clean. And then to the end of that, you have to look at the end of it, so that's why it's a nice clean ending for my book. In terms of policy, I don't think it matters very much at all.

Healy: No, it doesn't. And the fact is, there were other people, Marshall (?) and others, who contributed much, quite honestly the bulk ... put this discovery out ... others who were probably as pivotal. They were reading the Rosetta stone and understanding how nucleotides convert into actual proteins. Phenomenal contributions and how the helical structure was read was as important. It wasn't just one

contribution. I mean, I think if you ask people what precisely was the discovery that was made, they wouldn't even be able to tell you. You had Avery discovering DNA, Rockefeller years before. I mean they were a continuum of discoveries, Nobel Prize winning discoveries in aggregate. But, I think that this took on a symbolism that was...

Q: Well that's exactly why it's an inevitable issue for a historian to come through and hit. It won't be just me. I'm probably going to spend more time on it than others will. The other thing, though, is that Jim is doing an autobiography. And, I don't know, it depends when he writes this section, whether it's a big deal or not, because I don't think it's going to matter very much in your career or his. But it happened. It's important for the genome project, but not for. . .

Healy: But I don't think its... if anything, it's a positive for the genome program. What I have discovered since that time, I obviously was concerned. I did not want him to resign. I did not want that to occur... responsible solution to the problem, and at one point I heard that he was going to divest ... six months, which was at the time all he said that he wanted, and put it in the blind trust, whatever he wanted to do. And the whole thing would be resolved, or at least temporarily resolved and there could be a smooth and graceful transition. And in the course of one day, I heard he was going to do different things. He was switching every minute. But, I think the, it was the right time for change to occur, and I didn't understand that as much. I would probably, if I knew then what I know now, I would have been much less concerned about his resignation than I was at the time. At the time, I was worried about it. I didn't like it. I didn't like the publicity we were getting. I didn't like the sense that this was going to be the crumbling of the human genome program. What I found out subsequently, whether they are admitting it to you or not, was that numerous, numerous leaders in the scientific community, probably many of whom are his good friends, said ...

Q: No, they aren't telling me that, but that's appropriate, because they know my association with him. That's not surprising to me. And that wouldn't surprise me that that's the case. The other part on this is, I think Jim's main contribution was actually the ones you've already alluded to. There was one other thing that he was absolutely terrific at. He was as good as any scientist I've ever seen at learning the Hill. He was more than willing to kind of learn how you get things done. It's one of the things that very few people think about as a skill, and he was really good at it.

Healy: Well, yes and no...

Q: It's something that you've also... I mean, it's a... Actually there is one other place that I quote you in the book, but it's so uncontroversial that you aren't even going to care. It's from your thing... when you left OSTP, you wrote a piece for the Harvard Alumni something or other on politics in Washington and how the NIH works. And I quote that in the section on Weingarten where it's talking about the opposite of being the NIH director and what the extremely, extremely political factors that govern this job. There are very few people to appreciate the dynamics of Congressional politics and all that. And he was really, really good at that. He became...

TAPE ENDS