

Dr. James Huff Interview

Office of NIH History
Oral History Program

Interviewee: Dr. James Huff

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Beginning of transcript

Interviewer: The tape recorder's on. What I'd like you to help with is understanding -- as far back as you can help me understand -- the history of the toxicology program. And people have referred me to you as the one who's been with the program for -- I believe for its duration, and can help me understand how it came from NCI, and how it was established here, and what sorts of forces shaped it. So I'll have a bunch of specific questions about that, but that's the general area I'm interested in, and since we're trying to expedite this maybe you can just tell me.

JH: Well why don't I do that in a minute or two or three. The program was made formal -- or official in November of 1978, which I'm sure you're aware of that, and Joseph Califano who was the Secretary of -- it was called DHEW then, signed this into the Federal Register, it was like half a page, and someone like Larry Wolfe [spelled phonetically] would have a copy of this if you would need it. And this was, as best I can understand, the sole idea of David Rall, and he was the director here at the National Institute of Environmental Health Sciences. He perceived this absence of a coordinated effort in toxicology. You know, all these institutes had a piece, a little piece of toxicology here or there and so he, with Martin Nelson for instance, who was at -- no, not [unintelligible]. He's somewhere in New York City, I forget the organization, and now they've changed the name to the Martin Nelson Center for Environmental Sciences. So Martin Nelson, Irving Selikoff and people of that stature supported Rall in doing this and he then went to his people, and at the time I believe it was the now editor of Science magazine, Donald Kennedy who was at FDA, and [unintelligible] Bingham was the head of [unintelligible], Frederickson was the head of NIH. So all these guys, they're all pals and very professional and gentlemanly as opposed to today, and they liked this idea so they decided to bring those groups of toxicology within the department. As you mentioned, NCI, NIEHS, FDA and [audio skips] then there was a question about whether EPA or Department of Defense should be in because the Defense does a lot of [unintelligible]. And it was decided that the easiest thing would be only to include those people under Califano so that he wouldn't have to go through all these negotiations. So, the biggest piece came from NCI, which was -- I think the original budget was in the \$70 million range, and close to \$50 [million] of that came from NCI. Most of the positions came from NCI.

Interviewer: Tell me what you mean by most of the positions.

JH: What they call FTE's -- Federal Term Employees. And so, because each institute only has so many FTE's, so many positions, there wasn't 30, 40, 50 positions just to give to Rall for the NTP, so wherever the FDA donated so many and some money, NIEHS did the same -- well the

bioassay program that, at the time, I think was DeVita was the NCI head -- he wasn't really interested in the bioassay because that wasn't geared toward therapy, it wasn't geared toward treatment of cancer, and it was more not basic science. So he said, "Okay David Rall, I'll give you this stuff because it's a burden on me anyway." So it came down here, and again, I don't remember the exact numbers -- 50, 65 total, of which NCI was the biggest contributor and we were the second biggest, and the other two -- two or three percent, two or three, five percent. And I at the time was in [unintelligible]. And I had known Rall and I had known Jack Moore who was to become the deputy of NTP, and so Rall called me several times, "Hey, I got this exciting thing going on, oh man you won't believe it, blah-blah-blah...let me tell you a bit about it," and I'm sitting in the [unintelligible] looking at [unintelligible] thinking, "Oh yeah, thank you."

So he asked me to come to Geneva, he had some big Secretary General annual meeting, you know hundreds of people come from around the world. So I said okay, I jump on the train, I go up there and we meet and he's trying to entice me to come to North Carolina from France and I wasn't all the enthusiastic, although I was supportive of what he was trying to do. So as the days went by he kept calling and he kept calling me over there, I decided okay. So I jumped back here, and that was in -- it must have been late '79 or early '80 because I -- I think about that time. And so when I got here this building wasn't here so we were over on the other campus trying to struggle and get things organized. So he asked me to come and help move -- head NTP. It was already formal but you know, they were struggling as to what to do, and Jack Moore was, as I said the deputy, so I worked for both of them and was asked to take care of/clean up/make modern the bioassay program. And there were a whole hell of a lot bioassays going on because Griesemer and NCI had been taken negatively to Congress for withholding results from the bioassay program because they were just disorganized as hell and they weren't getting these reports out, so all of the sudden they got all these reports out, very sketchy reports, not as good as they should have been, and so that's when I came in the program and we -- I spent a lot of effort in trying to clean that up.

And we did a real good job, and we were doing 25-30 bioassays a year, as compared to now, when they do 3, 4 or 5. I think we were really on a roll, and we were gonna head to try to establish the nation's best toxicology program. And we were obviously concentrating on the carcinogenesis bioassay, but also established immunotoxicology, inhalation toxicology, reproductive toxicology and general toxicology, organ toxicology, so we were really setting the groundwork in doing quite well, and what was really neat about it is every time we did something it had a worldwide impact. When I got out of basic research, the reason I got out, I tell myself, was I didn't see any benefit to the world and I often said, "What

I'm doing won't help feed the people in India." [laughs] For some -- I mean, you know, facetious terminology. So I got out of basic research and everybody said, "Oh my god, you're going to suffer" -- and it's the best thing I ever did. So in the program I joined, when we put out a report on phthalates or methyl chloride or trichloroethane -- I mean, butadiene -- it just reverberated, I mean they descended on us to try to [audio skips].

So we just rolled away in doing all that kind of stuff, in trying to get good scientists to come here. We had to take a lot of leftovers from NCI, we had to take a lot of leftovers from here to fill positions because it's hard to get them and so this was the most expedient way to do it. The rest of the institute, and still today, worse today, resented NTP because they felt NTP was just kind of an observational toxicology and not real science. And so there were big battles going on, and Rall was great about keeping them separate. He knew NTP when he knew the institute, and that's the way it was and it was wonderful. And then Olden [spelled phonetically] came on. He didn't know what the hell NTP was, and he tried to destroy it, he tried to get rid of the report on carcinogens, he thought that bioassays were stupid and so he started right at the bat stealing money from NTP and putting it into the institute -- NIHS. And oh, there was another milestone -- when the deputy left, there's a couple since Jack Moore -- Rall decided to hire Richard Griesemer, who was in the original -- he was at NCI when the bioassay program came here. And I remember spending hours with Jack Moore on the blackboard trying to figure out what to give him, Griesemer, so he would be happy to come here. And he was never happy, so I said to Jack, I said, "The hell with him. Let's do the chart and organization the way we think best, give him his stuff and see what he says." Well, he said, "No, [unintelligible]." And he just started the biology division where I used to work in Oak Ridge, and Rall then announced this job to head up NTP under him, you know -- the guy doing the gruntwork, and he hired Griesemer. This was near the end of Ralls' career. And he called me and said, "I want you to be the first to know, blah-blah-blah-blah-blah," -- and he was full of crap and he said, "and you were a real close second to get this," but he also knew that I would clean house.

Interviewer: Meaning?

JH: Meaning people who weren't cutting it, they would either cut it or go and I would rearrange the activities so that we would be on the direct path of public health and environment. So I know that was negative because it wasn't, even then, politically correct to be so outspoken, and, "Sorry about Griesemer," and I said, "Hey, thanks a lot for telling me, now I'm not going to tell you something. I ain't working for Griesemer. I know him and I ain't working for him. I'll work with him and so -- what are you doing to do about it?" So I moved, again to make a long story short, he

first asked me to stay at least a year to orient Griesemer and I said, "That won't work because he's already been told, Griesemer has, to be on the lookout for me as a threat." So it was obvious from the beginning and so after a couple months I went to Ralls and said, "It ain't working, I'm out of here." So I went to epidemiology biometry branch, and shortly thereafter I went with Carl Barrett, who's now at the NCI.

Interviewer: I interviewed him last week.

JH: Really?

Interviewer: Yeah.

JH: So we had -- Carl and I had a really great run, I mean we published some really heavy duty stuff on public health and cancer and stuff. So when Olden came, he just didn't understand NTP and he talked ugly about it and all that crap, and so here we are today, where a lot of NTP money is being used, in my opinion, for things not relevant to NTP. And furthermore, he is an apparently leader of that program, Chris Portier is moving -- they see this glamorous basic research, of what I recognized in the '70s as being fine, but it isn't going to do much for the environmental public health. So I'm more interested -- I would like to see, rather, NTP move back to observational or empirical toxicology. For instance, I mentioned phthalates. We discovered phthalates to be a carcinogen, which was a big surprise to us. We just didn't think it would have been, and it's stimulated an amazing amount of research into phthalate mechanisms of which we weren't prepared to do, because -- you know, there are hundreds of people working on this, so why should we go into mechanism and devote our entire program to mechanism of dioxin, which has been studied since the '70s and we still don't know how it does anything. And so I was more interested in declaring things like butadiene a carcinogen, and let other people figure out how it does it, although I'm very interested in the mechanism. So what the phthalates did and the other chemicals we showed to be carcinogen, it negative -- it stimulates industry to figure out why it does it so they can say it doesn't do this in humans, but only in animals.

Interviewer: I've read some of your articles and the way I understood your argument was to say that mechanisms are researched by people who want to discredit the validity of animal models for human risks --

JH: Yes.

Interviewer: -- and that's what you're saying now, as well?

JH: Yes. This is their motivation, and that's disgusting, but the stuff they're finding out is okay, except, as I was talking to [unintelligible], we battle them all the time about their interpretations of -- "Well this is only in animals," and then ten years later we find that humans are developing cancer from the same stuff. And this happens over and over and over and it's called delayed gain, and then you can still make your profits and not have to clean up all your shit. So I'm very skeptical and cynical about industry and have been ever since I started way back in pharmacy. It's just a big cover up, a big lie, and it's worse today than ever. I mean, especially with the Bush administration -- oh man. [laughs] And Olden, I don't mean to pick on him but then I do mean to pick on him, because I think he's -- blah blah blah, and on top of that he's Republican. How the hell can you be a Republican and [audio skips] told that to him sitting here, I'd say, "You just [inaudible] why you are this way." And then he hired this scientific director, who's just full of himself, self-important, selfish, egotistical, blah-blah-blah, so I had a big battle with him and fought it out and so I moved from the division of intramural research and now I report directly to Olden. And along the way, some of the battles I have in here is because industry was getting in Olden's ear, saying, "Hey, you've got to keep Huff quiet." And even the International Agency for Research on Cancer, Paul Kleihues was told -- I was told that he told Olden to shut me up. And he --

Interviewer: About what?

JH: About criticizing the trend and tone of [unintelligible] of that paper -- and that caused a storm. So I said to Olden, I says, "You'd better watch out because I'm gonna do the same to NTP and you're going to be in trouble." [laughs] So basically, that's the history of NTP. I think it had a great first ten years, I think now it's just politically correct, pushed around by industry, and it's not doing what I think it could or should be doing.

Interviewer: A couple of questions. You mentioned it [audio skips] go from Oak Ridge to [unintelligible]?

JH: Yes, yes.

Interviewer: And I'm asking because a number of people have mentioned that the migration of scientists from Oak Ridge to NIEHS or NTP has shaped the kind of science that's done at this institute. Could you help me understand why that's true?

JH: For some reason Rall just pulled a lot of people from Oak Ridge. When he came here, budget and the space, and he built this building.

Interviewer: Yeah I actually really like that.

JH: Yeah. Olden doesn't.

Interviewer: And I don't know why. You know, I never asked him why so many people from Oak Ridge came here. I don't -- again, on the one hand I admire these guys doing basic research but on the other hand, I would ask them to their face, what contributions have they made to the environmental public health in 30-35 years here? They have no response to that. You know, they do their little bit, and you know, for basic research. I remember Jan Drake saying to me one time, when Rall asked me to get some sentences from these guys for -- when I used to help Rall write the budget request for Congress. And I would always insert these little tidbits of research and Rall would always crack them out, and so after the third time, I was brand new here, I said, "Dr. Rall, this is interesting stuff." He says, "Congress isn't interested in this little thing they're doing here. They're interested in the air pollution, they're interested in occupational exposures, and that's what I emphasized in the budget proposal." I said, "Okay, great. Glad you told me." So I went to [unintelligible] with Jan Drake once who's 800-years-old and I said, "Hey, Jan, Rall wants me to get something from you about your research as it's relevant to the environment." "I don't give an F about the environment. I'm a basic researcher!" I said, "Okay, what about public health?" "I don't give an F" -- and I said quite a few choice words to him, and after that he didn't speak to me for about five years or so. And then so I came back to Rall and said, "Dr. Rall, was this a setup to set me up?" [laughs]

Interviewer: What did he say?

JH: He said, well he just wondered to see if I could get anything that he hadn't been able to get. And so this is the general tone of -- at the early start of NTP, and what I would tell people when they said, "Well, you come down here and you steal our [unintelligible]," I said, "Wait, wait, wait. When Rall built this building he made a space for NTP. We took no money from you because we got a separate budget." Now it's up to like \$175 million, and much of that is not doing NTP's work. It's doing other stuff. And Olden and with Chris Portier, he's on a trip to do away with the bioassay with all of this modern stuff. Well, as I've told them and others and as I've published, in my whole career, I've attempted -- and other thoughtful people have attempted to replace the bioassay with something, as we say - - faster, more accurate, cheaper and less animals, and that's our goal. But in the 25 years I've been in this stuff there's been a thousand substitutes, none of which have worked.

And now we're into the transgenics, which are full of shit. Now we're into the toxicogenomics, which is full of crapola because they should have studied the models that they were interested in before they started

pumping chemicals in them to see what the results were. And there's so many discrepant results between the bioassay, if that is the comparison, and the transgenics. And, you know, they say it's faster and cheaper. Well, it started out to be a six month exposure. Now it's nine, going to twelve. It started out to be, "We can use this animal," and now we can't. And then it's, "Well, we'll use these other two or three." So my point is, you'll eventually end up with ten transgenics of different sensitivities for the kidney, the bladder, the lung, eyeballs, whatever, and the cost is astronomical because these animals are amazingly expensive, and you're going to end up -- they started off with 20 animals, now they're thinking they have to go closer to 50, so they're not saving anything. And the accuracy is suspicious.

So that's basically my problem with the transgenics. They were giving awards to people who were using transgenics before they even had any results out. They were so excited, "Oh yes, this is the answer." It wasn't -- they didn't give it the proper contemplation. So that's about it.

Interviewer: You have a article out, I don't think I wrote down the date -- where you talk about toxicology going molecular, desire to go molecular. What's the impetus for that?

JH: My impetus or the toxicology impetus?

Interviewer: How do you perceive what you perceive to be the impetus within toxicology?

JH: Well first of all, everybody coming out of school in the last 15 years are all molecular, DNA is the answer, which may be and which is fine but we need some people with practicality. We need some people with toxicology -- observation of toxicology, empirical descriptive toxicology, that -- you find out something causes cancer, then let somebody else mess around with the mechanism. It's immunotoxin -- okay, go on to somebody else. I want to know, is it a [unintelligible]. I don't want to know how it does it, now, I want to know, "Is this safe?" And you can spend -- I know guys who spent their entire lives, 30-40 years trying to figure out benzyne. I'm not interested because -- I mean, I published a benzyne study here and it just knocked everybody over, and I moved on because that's not my interest.

Interviewer: That's the public health mission.

JH: Exactly, and I have this drive to protect public health and the environment and occupational health and people. You do the test tube shit, and that's fine with me, but when you steal it from this bag then I get unhappy, and so this glamorous molecular basic -- so what? Since 1971, the progress

we have made on the war on cancer is embarrassingly small. Billions at NCI -- what are they doing? I mean, tamoxifen? And that is a human carcinogen.

Interviewer: Right, they do.

JH: That's fine, that's okay, there's not a cancer chemotherapeutic I know of that's not a carcinogen. But that's okay -- you prevent non-Hodgkin's lymphoma in youngsters and teenagers with all your radiation and medicine, cancer chemotherapeutics -- 30, 35, 40 years old they get something else from this treatment, but they got these years, and that's great. And now the big thing is "Cancer is going down." Lie. Cancer mortality is leveling off, going down a little bit because of early diagnosis treatment surgery. Incidence is going up. So give me a [unintelligible] -- what are you doing with your billions and billions and billions? And as Sam Epstein says, from Illinois, the prevention budget has now gone up at NCI and it's still below 10%. I argued with Olden, he said, "95% of all money here is prevention." I said, "Olden, you're full of shit." And I named five or ten investigators to tell me what contribution they'd made to prevention, and he had no clue.

So they're not doing it. They're not doing prevention. They're not -- I couldn't get Olden to publicly endorse the precautionary principle, which says basically, "Prove it safe before you start putting it in my mouth." Whereas prior to that, it was the government's task to prove something harmful after it's out on the market. What kind of crap is that? [laughs] So fortunately there are other people in this country that are involved in precautionary principles. Take the people in Europe like Phillippe Grangein [spelled phonetically] -- but we're not, and I find that horrible, embarrassing.

Interviewer: I should let you go back to work. I will...