

Williams: This is an interview with Dr. Jonathan Uhr for the American Association of Immunologists Centennial Oral History Project. Dr. Uhr is professor emeritus at the Cancer Immunobiology Center at the University of Texas Southwestern Medical Center. Dr. Uhr was president of the American Association of Immunologists from 1983 to 1984 and served as an AAI Council member from '78 to '83.

We are in Dr. Uhr's home in Dallas. Today is Tuesday, April 16, 2013, and I'm Brien Williams.

Dr. Uhr, thank you for doing this. We appreciate it.

Uhr: Pleasure.

Williams: Let's start with your family background. Tell me about where you come from.

Uhr: On the maternal side, which played the most important role in my life, my grandfather came from Russia to a tiny little town in Iowa, less than a thousand people, with his new bride, my grandmother. They moved from town to town because they were very poor and had to work very hard. My mother was born in Ottumwa, Iowa. They finally settled down in Oskaloosa, Iowa. My grandmother brought over her 11 brothers and sisters, and from them there emerged, as of twenty-five years ago, 250 progeny. We know that because I have a cousin, Devita Handler [phonetic], who came from Dublin, Ireland, and who was a genealogist. I'm not sure whether it was her father or grandfather who was the first Jewish mayor in Dublin, but in any event, she was a genealogist and we got appropriate information. Most of the Handlers were in the middle west, where they would meet their spouses at school, but some got to the coasts on either side.

Well, my grandfather became a pioneer in the movie business, and after about a couple of decades became very wealthy and moved the family to Detroit, and that's where they still are. I have five cousins there who are really like brothers and a sister to me. We spent every summer together on Lake Huron, where we had a tiny little cottage, but it just had everyone in it.

Well, my mother's father felt that women could do anything, so my mother was sent to law school, Detroit Law School, to keep her brother company. He was a wild brother, and there's no way he would have gotten through without my mother. My mother thought it was a second-rate law school. It was called, I think, Detroit Law School. So she went to the University of Chicago, where they let her take all of the exams, and she got her law degree, a second law degree, in something like seven or eight months.

She was very bright. When she was sixty-seven, just for the hell of it, she decided to take the bar a second time. She studied a little during the summer and breezed through the bar. Anyway, my mother was considered brilliant by everyone and

extraordinary. I never thought she was brilliant. I thought she was very bright, but had very good judgment.

Now, my father's family came from Hungary, and my grandfather came to New York City, and my father grew up there with his brother. Both families were the same, two boys and four girls in each. The youngest girl died in each family, so they each ended up with two boys and three girls that grew up together.

My father went to medical school and graduated, and so did his brother, who was eight years younger. My father became a pediatrician, but he was extremely talented in terms of music, so he thought he might become a conductor, but then decided it was more practical to be a physician. But his love of music persisted throughout his life, and he basically was a critic for our local newspaper that covered the concerts in New Jersey when we moved there when I was, I think, four years old.

He also had studied microbiology at the Rockefeller Institute, and when I was a small child, he encouraged me to pick up food from the floor and eat it. He said, "You'll have a good immunity that way." We would tease about "Pass the vermin, Herman." But in any event, it succeeded. I hardly have ever been ill for any significant length of time in terms of infectious diseases. In my forty years here at the medical school, I didn't miss one day's work because of sickness.

I became rather disinterested in problems. When I had a fractured skuHer1.15N mea(ut)-EMC

So after my first internship, I did a year of pathology residency before I went on and did all the residencies in medicine. Of course I eventually chaired a microbiology department, so I certainly have fulfilled his wishes for me.

that. We've been friendly with that family. We've gone down to Buenos Aires. They've come up here many times and so forth.

Williams:

Now, that changed dramatically in the decade or two after I went into academia. That all was just thrown to the side and just changed completely. I'm also interested in how quickly it changed, but at that time it was part of the culture. Most people don't know about that. So that's why I got into New York University School of Medicine, and that's why I went to Mt. Sinai Hospital for my clinical training. I could become chief resident in medicine there, and I did.

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My ambition was to become a very good clinician, a hands-on clinician. Mt. Sinai was kind of the last of the great clinical centers. It wasn't an academic center yet, so it just emphasized all aspects of history taking and physical examination. It was just superb.

New Jersey. I went out there every night, I guess. It was a long trek going there and coming back in the morning.

But from that, although that wasn't important, I then did two things during the next fifteen years at NYU Medical School which I think were important. The first one which came from that, I'll call antibody feedback mechanism. I showed that antibody that is formed feeds back on the immune system and keeps it from making more antibody, an antibody feedback mechanism. I used to talk to a former medical student colleague of mine who was doing work with prisoners at Sing Sing on the Rh-incompatibility problem, and I think I had a modest influence on them. In any event, they basically solved the Rh problem of disease. When a father is Rh-positive, the woman is Rh-negative, with succeeding pregnancies, she begins to make antibody and therefore can react against the fetus and kill it. They showed that if you gave antibody to such women passively, it would feed back, and they wouldn't make new antibody of their own. So it was a major accomplishment. In fact, they got a major prize for it, which I wasn't included. [laughs] So that, I think, was a worthwhile piece of work.

The second one occurred just a year or two before I left New York University when I for the first time began to do biochemical studies, or I should say just chemical studies, of the cell surface of lymphocytes and looked at how antibodies are traversed in a plasma cell and secreted. It was rather basic studies and it opened up an

Williams: Did they all go with you?

Uhr: Yes.

Williams: How long were you there?

Uhr: I was just there for six months.

Williams: What about your service with the Irvington House Institute? What was that about?

Uhr: Irvington House Institute, prior to my becoming head of it, had worked out the natural history of rheumatic fever. It was an incredible feat. I didn't participate in this. It had been done already. Basically, I realized that the important thing was to do research. They already had determined the natural history of disease. I thought to myself, rheumatic fever is probably an autoimmune disease, but it's the only one where we know the etiological agent. It comes after a beta-hemolytic streptococcal infection.

Well, I managed to get a hold of a huge primate colony, twelve chimpanzees and twenty-four baboons. When the chimps came, they were just bant.15 Td u4(boon Tw [(i)-2 S15

So we tranquilized the chimp and dressed it in baby's clothes, got it in a convertible, drove it into Bellevue Hospital where we had forewarned the appropriate groups, and the chimp was signed in as a patient, and was on a stretcher going through the halls to the cardiac catheterization lab, and it was rather surprising that no one seemed to notice that this was a rather hairy face with the green hat on and so forth.

It was catheterized and brought back, where it signed out against advice, was retranquilized, put into the car, and drove home again. Now, I don't think that would have gone over very well if we had been discovered, but there was too much at stake to not do this. This was a critical thing. Now, unfortunately, it turned out to be a functional murmur, not an organic one. We had failed, and that kind of ended my attempts to do something pertinent for rheumatic fever.

I think we did one other thing. It was Irvington House Institute for Rheumatic Fever and Allied Diseases. So we also had a group of patients, mainly young patients, who had arthritis, which we thought might possibly be due to a slow-acting virus or something like that. So we took material from them, I don't remember where, and we injected that into chimps to see if we could get rheumatoid arthritis, and that didn't suc,914(at)-6(t)-6(h)-4(i)-6(s)-5(Tw -10.7)f2(ha)4(t)- -26.79

what happens with patients with rheumatic fever. You needed a very high follow-up rate, like 90 percent, not 30 or 40 percent.

Well, it was very expensive, and I felt that the research we were doing in basic immunology was the future, and the clinical studies had been completed, so we closed the clinic. Immediately those physicians who were involved in the clinic protested and began to do things. This is basically in 1960s, when we were having problems in Vietnam and people were protesting everywhere. They began to picket and close up the clinic, etc., and soon Bella Abzug, the communist leader, New York, joined in, and other minority groups, and basically began to picket and to do physical things to keep us from going into the laboratories and the clinics and so forth.

I remember sitting at home with my two children, who now were old enough to watch TV, and they were looking at the television and at the signs of the pickets saying, “Dr. Uhr. Dr. Uhr hates our children. Why does Dr. Uhr hate our children?”

And they said, “Well, Daddy, that’s you there. Why are they saying that about you?”

And I had to explain that I really was an innocent individual in this, that this was a judgment and the right judgment that had to be done. The clinic was now in Bellevue Hospital, but it wasn’t the same old clinic where you could just do everything for t

the psychiatric and prison wards, and it was exhausting. After making rounds, you'd come back to the lab, and you'd kind of been depleted of energy for your basic research. And I was on all these committees, up and down the line. I realized that I might as well take a chairmanship in a basic science department, but I definitely wanted to continue to make ward rounds at some level.

I can't remember all the places I visited. Anyway, when I came down to Dallas, they had just put up a new beautiful building, and I was allowed to have twelve new appointments to the Department of Microbiology. It was just an excellent offer. I'm very athletic and I'm an outdoor person, so as soon as I accepted, I immediately—I didn't come down for a year, but I enrolled in the tennis club, you know, and tried to get seats for the Dallas Cowboys football game.

I just love Texas. It has very good manners and very friendly, and it's a very attractive place for me to be. I was brought up with very good manners, and New York City and I didn't get along very well. I can remember getting on a bus and seeing the bus driver yelling at some older woman one morning, looking at my watch and deciding, well, should I begin my first fight of the day now or should I wait till I get to Bellevue where I have trouble with the elevator guy, we always are fighting, and so forth. New York City was not my cup of tea, and Texas was.

Williams: What kind of bones of contention can you have with an elevator operator?

Uhr: Who knows. I don't remember. He just was rude to people and so forth, and I don't like rudeness. Other colleagues there and so forth would have arguments. It just wasn't the kind of culture at the medical school here. People just behave very nicely to each other.

I can just tell you one place where I went. The dean met me at LaGuardia and went—it was a southern school. As we went down there, in addition to discussing the position, the chairmanship of microbiology, he was complaining about his son, who just was a bum and so forth and so on. I said, "Well, you know, let me talk to him. I can be quite convincing."

So when we got there, had breakfast, I went into the room and here was this young man, lying there in jeans, torn jeans, music around, and looked drugged to me and so forth. I gave him a thirty-minute discussion of why he should think of becoming a doctor

Uhr: Not at all. He just continued on his ways and became one of the most famous singers in our country. [laughs]

So in 2009 it was voted the most important medical invention by the U.S. Pharmaceutical Industries, and the French gave it a similar rating, some special name, a very high prize, and Johnson & Johnson nominated me as Inventor of the Year. Now, mind you, I'm pretty old at this point in time. I tried to get Johnson & Johnson to give me a little money so that I could push things more quickly. They had made literally hundreds of millions of dollars from this invention, and I wanted another couple of hundred thousand to press ahead a little more quickly. That would be nickels and dimes in our pockets. They came down and visited me

think it's strong. I don't think there's good enough evidence to suggest that that plays a role.

And the same thing from neovascularization. Judah Folkman speculated a long time ago, and it's a very popular concept, that basically you don't have enough blood supply to a group of tumor cells, and they'll be dormant. Then you'll increase the blood supply, and off they'll go. Well, again, I don't see that as being so precisely regulated that someone fifteen, twenty, twenty-two years later can have this turnover in the tissues and be that precise. That's why I'm interested in following the hypothesis of an organ-control mechanism, which are poorly understood in the human. They haven't been worked out yet. I don't know why. It's a very exciting area.

Williams: I'm curious about how far along you developed the science before you gave over this to Johnson & Johnson. In other words, did they also do some research and refinement, or did you hand them the finished product?

Uhr: No, the firm that I worked with was headed by a brilliant man whose name is Dr. Paul Liberti, and we developed this. Immunocon was on the pat -28.09 -1t3g2 Tw T* [nj()u-1

Uhr: No. I basically was a good mentor and I'm really a sweet guy. I have to just be tough to get what I wanted to do, but, you know, I don't really enjoy confrontations particularly and so forth. I think I was a very supportive chairman, but I don't go in for a lot of frills, etc., and so forth. So when it came down to the bottom line, I was very direct, and it would get me in trouble scientifically as well. When I didn't think someone was presenting something that wasn't solid and so forth, I would get right up and say so.

Amusingly, one of my faculty who just tortured me became head of an institute of his own, and six months later he came up to me, apologized all over the place. He said, "I didn't realize what I was doing to you until it's done to me. He said, "They're just torturing me for every kind of complaint, decision, want me to rewrite the menu in the cafeteria in the institute I'm head of."

Well, this person started, as a tradition, to come in the fall—he's from another state—and have two other full professors formerly of the department get together with me and have dinner together and go to a Cowboy football game the next day. Throughout these several years when this is developed, their attitude towards me just is this remarkable change. They now have forgotten about how bad I was, and now they say, "You were the most wonderful, supportive chairman." I mean, you just this and this and that. That's not how they treated me when I was chairman. I guess their own children and grandchildren have made them aware of all the problems in life and they've become extremely empathetic, and I find it rather amusing how they tell me how sweet I am and so forth. That's not how they were when I was the chairman.

Williams: What's it like to be a professor emeritus?

Uhr: Well, I mean, basically it really is a problem. For example, from this patent that I have, significant funds would come from it to the school, but I'm not allowed to utilize them. They go straight to the department, in this case the Cancer Immunobiology Center. They would have helped a great deal, and I can't get them and I can't do anything.

Williams: Let's turn to your time at the American Association of Immunologists. You were president in '83, '84. Do you have any outstanding memories of your presidency or other associations with the organization?

Uhr: Not at the scientific level completely. I mean, it just was part of your interactions with other scientists, and you'd see them, if not at the immunology meetings, you'd see them at other meetings, or meetings all over the place. I used to go to those once a month, frequently abroad, where you'd see the same people.

While I was a tough chairman, we played hard as well, in addition to working very hard. So we had our own band, and our own band would frequently play at

reasons, it was stopped. It was an excellent group. It was my first exposure to making very critical judgments when you didn't have all the information.

I was just dumbfounded at what had to be decided. For example, when I was deputy director, unfortunately, one day the director was out of the country and he couldn't be contacted when I got a call. The Marines who were getting their typhoid immunizations were dropping like flies. Something had to be done. There was no time to get some new vaccine or anything like that. A decision had to be made. Did you cut the vaccine down? Did you give it in two different, three different days, or something like that, etc.?

Now, that was a critical decision. The vaccine was only 70 percent effective. Well, let's say you cut it down and it's only 45 percent effective. Is that platoon going to be out of commission because of that and overwhelmed and have everyone killed? A decision had to be made. That's all I remember is that I was very concerned and basically called all over the country to talk to everyone I could think of.

Then I reached a point where I thought this was the best decision I can make. I can't even remember what it was. B

When it was finished, I felt I could anything, and I wouldn't change anything in

Uhr: You know, I haven't kept up with immunology for the last two decades. I'm way behind in terms of that. To keep up with it, by the way, I'd have to be full-time. I mean, there's so much going on there.

