



ORAL HISTORY PROJECT

**Clark D.
West, MD**

**Interviewed by
Joseph L. Rauh, MD**

September 3, 2002
Cincinnati, Ohio

<https://www.aap.org/pediatrichistorycenter>

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PREFACE

Oral history has its roots in the sharing of stories which has occurred throughout the centuries. It is a primary source of historical data, gathering information from living individuals via recorded interviews. Outstanding pediatricians and other leaders in child health care are being interviewed as part of the Oral History Project at the Pediatric History Center of the American Academy of Pediatrics. Under the direction of the Historical Archives Advisory Committee, its purpose is to record and preserve the recollections of those who have made important contributions to the advancement of the health care of children through the collection of spoken memories and personal narrations.

This volume is the written record of one oral history interview. The reader is reminded that this is a verbatim transcript of spoken rather than written prose. It is intended to supplement other available sources of information about the individuals, organizations, institutions, and events which are discussed. The use of face-to-face interviews provides a unique opportunity to capture a firsthand, eyewitness account of events in an interactive session. Its importance lies less in the recitation of facts, names, and dates than in the interpretation of these by the speaker.

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ABOUT THE INTERVIEWER

Joseph L. Rauh, MD

Dr. Joseph “Jerry” Rauh is a graduate of Cincinnati’s Walnut Hills High School, Harvard College, and the University of Cincinnati College of Medicine (1955). After an internship at Boston City Hospital and two years in the US Public Health Service, he completed his pediatric residency at Cincinnati Children’s Hospital Medical Center. In 1960 he joined a pediatric practice in Cincinnati and also started the Adolescent Clinic under the mentorship of Dr. Robert Lyon. In 1971, with support from his pediatric chairman, Dr. Edward Pratt, he went full time in the Department of Pediatrics and Children’s Hospital.

Dr. Rauh retired as the director of adolescent medicine in 1977; he still works part time and devotes time to the national board of Planned Parenthood as well as the Alan Guttmacher Institute. He was a charter member and president of the Society for Adolescent Medicine for whom he has done several oral/video histories.

Interview of Clark D. West, MD

DR. RAUH: This is Dr. Jerry Rauh, interviewing Dr. Clark West at the [Cincinnati] Children's Hospital Research Foundation, part of [Cincinnati] Children's Hospital Medical Center, on September 3, 2002.

Can I call you Clark because I've known you since I was a medical student here at the University of Cincinnati College of Medicine in the early 1950s? You were born in Jamestown, New York.

DR. WEST: Right.

DR. RAUH: Can you tell me a little bit about your own family?

DR. WEST: Yes. My mother came from a farm family, one of six children, and my father came from an urban family. His father was a dentist. I was the only child. My father had contracted rheumatic fever at the age of eleven and had, presumably, mitral stenosis. When I was in kindergarten, he died of congestive heart failure. By that time, we lived in the suburbs of Jamestown and had to move back into town to live with my aunt and uncle. So I grew up in the city. Eventually my mother married again, and I had a whole new family to be with. Eventually, of course, I went to college and left Jamestown.

DR. RAUH: Do you think your family had an influence on your initial interest in medicine?

DR. WEST: My initial interest in life was in agriculture. I wanted to be a farmer. Farmers in the 1930s were destitute as any occupation and so I was very severely discouraged from that. I had two uncles that were farmers and they lived hand to mouth.

DR. RAUH: They were having a real struggle?

DR. WEST: Yes, they weren't rich yet. I guess it wasn't until I was about in second or third year in college that I definitely decided on medicine.

DR. RAUH: You went to the College of Wooster?

DR. WEST: Right.

DR. RAUH: Here in Ohio. What did you major in?

DR. WEST: Biology and chemistry.

DR. RAUH: How did you end up at University of Michigan Medical School?

DR. WEST: I applied to three medical schools: University of Pennsylvania, [Case] Western Reserve [University] and Michigan. This was on the advice of my chemistry teacher who, of course, didn't know anything about it, but pretended to. The only one that accepted me was Michigan. I guess I was lucky to get in there; my grades in college weren't the greatest.

DR. RAUH: Did you have a good time in college?

DR. WEST: Yes, yes, you know, fraternity life and all that.

DR. RAUH: Clark, tell me, did you, do any research work in medical school? Do you remember?

DR. WEST: Yes, I did some in bacteriology. I tried to demonstrate a toxin produced by a bacterium and I can't remember what the bacterium was, which caused peristaltic contractions in the gut. I never got very far. You just didn't have time for that sort of thing.

DR. RAUH: Did you have any mentor?

DR. WEST: I did have one in bacteriology for a part of a semester. He was not a long-term mentor.

DR. RAUH: And tell me about your postgraduate experience. Was it in Ann Arbor?

DR. WEST: Right.

DR. RAUH: University Hospital.

DR. WEST: Right. That was in wartime and every graduate got nine months of postgraduate training and then two-thirds of them were allowed to continue on for another year. At the end of that second year, they took another third in the army and then the final third continued on for three

years. I was able to continue on for three years. It actually was three nine-month periods, not years.

DR. RAUH: Why did you pick pediatrics?

DR. WEST: Well, I initially had an internship in surgery because I was told that was the best rotation and it was. I got a very good, broad introduction to practical medicine that way. Then, because I wanted to do research and because it seemed that the only people in the university who did any clinical research were the pediatricians, I decided to go into that. I liked the people and I like to be with kids.

DR. RAUH: You must have gotten married at some point?

DR. WEST: I got married as an intern.

DR. RAUH: Okay. And then you went to Japan?

DR. WEST: When I completed my residency, my duty was in Japan.

DR. RAUH: By the time you went, the war was over?

DR. WEST: Yes.

DR. RAUH: Where were you stationed?

DR. WEST: In Yokohama. I was in a general medical dispensary. There were ten dentists and six medical officers, and because I was senior as far as getting in the army was concerned, by probably a week, they made me chief medical officer of the dispensary. Somebody else ran the dentistry but I ran the medical outfit.

DR. RAUH: Was this in a hospital?

DR. WEST: No, it was in the Yokohama stock exchange. It was all bombed out, but they left the bank standing.

DR. RAUH: You made some big decisions, I guess?

DR. WEST: Yes.

DR. RAUH: What did you do as you finished your career in the army?

DR. WEST: That was when I wrote the letters.

DR. RAUH: You want to explain that a little bit?

DR. WEST: I knew that I didn't want to practice and I knew that I wanted to do research and be in academic medicine, which was really something you just didn't do in those days.

DR. RAUH: Right, this was very pioneering?

DR. WEST: Right, yes. To that end, I wrote letters to five different institutions in the states, telling them what I wanted and asking if they had a slot where I could get training. And four of them didn't bother to answer and the one that did answer was [A.] Ashley Weech, chairman at Cincinnati. He indicated that he couldn't give me a definitive answer, but he might have a slot and it would depend on the opinion of Dr. Sam [Samuel] Rapoport, who unfortunately, was currently in Japan doing research. Dr. Weech didn't know I was in Japan because my address was an APO. So I just went ahead and called people I knew in Tokyo and found out where Dr. Rapoport was. He was there with Dr. [G. John] Buddingh and Dr. Katharine Dodd. They were studying a disease of Japanese children called Ekiri, and I made an appointment and went over and met them. I guess at that time, I got the position.

DR. RAUH: It sounds like it was fortuitous that you got a chance to meet them?

DR. WEST: Right, it was very fortuitous that we were in the same country at the same time.

DR. RAUH: So, you had some idea who you would be working with when you came to Cincinnati?

DR. WEST: Right. I never had heard of Sam Rapoport, but I knew Katy Dodd by reputation. Everybody in pediatrics in those days knew Katy Dodd, and John Buddingh was a bacteriologist at the University of Louisville.

DR. RAUH: Katy Dodd wasn't in the service, was she?

DR. WEST: No, no.

DR. RAUH: She was there because of this project?

DR. WEST: Right. She had been invited with the others to investigate. I don't know under whose auspices it was, be it the Army or some foundation.

DR. RAUH: Tell me about your arrival here, if you can remember that. It was in 1948, I think?

DR. WEST: Yeah, it was in the last few days of 1948. I'd just been discharged probably a month before and came down by myself to scout the situation.

DR. RAUH: Did you have children by then?

DR. WEST: Yes, I had one boy. He was born while I was overseas.

DR. RAUH: Remind me, your wife Ruth Ann. Was she a nurse or a technician?

DR. WEST: She was a nurse.

DR. RAUH: When you got here, what did you think of yourself as?

DR. WEST: [Laughs]

DR. RAUH: I don't know how to say this, because we're talking about language that to some extent didn't exist then.

DR. WEST: Well, influenced by Katy Dodd, Sam Rapoport had developed a big interest in electrolytes and dehydration and the therapy of diarrheal disease. In those days, potassium was not used. There were complications in treatment, one of them being the fact that children had seizures after we rehydrated them, on the second or third day of their convalescence. Another was that kids came in hyperventilating. They had lost so much water by respiratory loss that they were hyperelectrolytemic. During their treatment, they usually seized and so you had these complications of treatment. Everybody was trying to figure out why they convulsed and how are you could avoid it.

DR. RAUH: This must have been a really front burner matter because there were so many babies and young children with diarrhea. I mean, even today we have that. Were Drs. Rapoport and Dodd able to get funds for support of this?

DR. WEST: No, the NIH [National Institutes of Health] probably had two or three grants out at that time. There was no money. You did it on institutional funds.

DR. RAUH: Was the NIH interested in pediatrics at all?

DR. WEST: Yes, but to be funded you had to be a pretty basic science doctor. The head was Donald D. VanSlyke, who was a famous biochemist who developed a lot of methods and was really a pioneer. He was the one who gave out the grants and I don't think he got any advice from anybody; he just figured it out himself. The money wasn't abundant, but then scientists weren't abundant either. Grants didn't come to the CHRF [Children's Hospital Research Foundation] until probably 1953 or 1954.

DR. RAUH: Did you have support from the Rockefeller Foundation?

DR. WEST: Just that they gave money to departments to grease the wheels to get young men into academic medicine after the war. I wasn't formally approved by them. The funds came to the institution.

DR. RAUH: You had told me when we were just chatting before that you first thought of yourself as a physiologist and then you changed that to immunology. Could you just elaborate on that a little bit?

DR. WEST: Well, you want to go back a little bit. I was a fellow here under Sam Rapoport and during that time he became interested in renal physiology and he wrote quite a few papers which, in retrospect, didn't amount to much, but which we thought were important at the time. And, after I had been here a few months, I got a fellowship from the National Foundation for Infantile Paralysis.

After I'd had that for a year here, the committee that gave it out decided that I should broaden my background and go elsewhere. So they decided I should go to learn some respiratory physiology in New York. I got a fellowship with Andre Cournand, who, just before that had won the Nobel Prize. So I spent a year in Bellevue Hospital studying respiratory physiology. I didn't care anything about respiratory physiology. I didn't want to pursue that. But it

was a good thing to do because I got acquainted with a lot of people in New York that I never would have met otherwise. It broadened my horizon, you might say, politically.

DR. RAUH: You knew you were coming back here?

DR. WEST: No, I didn't. Shortly after I left, the communist business came to a head in Cincinnati and Rapoport was accused of being a "parlor pink." He had given a talk to some communist cell here in Avondale and everything he said was supposed to be confidential, but there was an *Enquirer* reporter in the audience. That's when it was all over the papers and shortly after that he left for the International Congress of Pediatrics in Geneva, Switzerland. He was going to go to that anyway and while he was gone people threw rocks at his house and broke windows and it was a bad scene. So his wife and children came to join him in Geneva and, subsequently, he moved to Vienna. Then, quite a few years later, moved to East Berlin.

DR. RAUH: Did someone take his place here, after all this happened?

DR. WEST: Actually, Weech approached me and asked if I would take Rapoport's place. And I jumped at the chance, obviously, because I didn't have any other place to go.

DR. RAUH: You were still in New York City?

DR. WEST: I was still in New York. I left for New York in June.

DR. RAUH: Alright.

DR. WEST: And all this came to a head a month later in July. So, he left in July and the position was vacant, and so after a couple three months, Ashley asked me if I would return, so I came back to a job as assistant professor, which was very nice.

DR. RAUH: Did you immediately get involved in helping our laboratory services here? I mean this is a pretty big part of your career, although by no means the only thing?

DR. WEST: Yes, I was head of the chemistry lab for many, many years. In fact, probably 25 years. That was an administrative duty, I had. And if you've got good people running it, you didn't have to do much.

DR. RAUH: I think, I first met you as a student. You were part of the pediatric faculty teaching the students, with the residents too?

DR. WEST: Right. I taught mainly acid base, you know, basic rehydration. Critical information about electrolytes. Acid-base balance and so on and I think that was one of the reasons we'd all liked pediatrics so much. We hadn't had much of that in any way that was meaningful clinically. It was one of the important parts of pediatrics and less so in adult medicine.

DR. RAUH: Right.

DR. WEST: It saved a lot of lives in pediatrics. I'd like to say that before I came here our emergency room was deluged by dehydrated newborns from another hospital, who had been infected with an *E. [Escherichia] coli* and had diarrhea and were in bad shape.

The residents were pretty overwhelmed, and everybody did their own thing as far as rehydration in those days. There was no special plan, and Katy and Sam both felt that we needed to have something in writing that everybody followed, so everybody would know what the other person was doing. So they started a little booklet on electrolyte balance and I inherited that booklet. As the years went by, I added to it and expanded it and revised it. It went through, I think, about eight editions before I finally gave up in the 1980s. It was a valuable book.

DR. RAUH: Have you kept all the old ones?

DR. WEST: Yes, I've got them at home, you know. I never look at them, but...

DR. RAUH: Well, I think they probably have some historical interest.

DR. WEST: Yes.

DR. RAUH: Because Bill [William] Gerhardt needs to be told about this. That's the kind of thing he's always looking for. He's our historian here.

DR. WEST: I don't think I gave him those; I gave him something else.

DR. RAUH: Did you get requests for these from other hospitals and departments?

DR. WEST: Yes, yes, we furnished them in lot of places.

DR. RAUH: I can remember getting one.

DR. WEST: As the residents would leave, they'd talk about it at their other, new institution.

DR. RAUH: Yes, you had built-in marketing essentially.

DR. WEST: Right, right. Word of mouth.

DR. RAUH: When did you go from immunology to nephrology? I don't even know if you used that word, nephrology, then.

DR. WEST: No, that wasn't coined until about 1962 or 3. In those days children that had renal disease like nephrosis and nephritis were cared for by their pediatricians because nobody really knew what to do for them beyond a few basic things. A specialist really wasn't needed, but everybody knew that I had an interest in the kidney and interest in electrolytes and so when a pediatrician decided maybe he needed a little help, they'd call me and I would give advice. Often after that the pediatrician would continue the care. But then as time went on, care got more and more complicated and so I often inherited the patient for good. In that way I accumulated a group of patients and we had what we called a nephritic clinic.

DR. RAUH: Was anyone working with you then?

DR. WEST: Don [Donald] Cheek was with me for probably two or three years, in the 50s, and then Nancy Holland, Nancy Hinkle-Holland, was with me for a number of years. I had a fellow from Australia with me for a year, and then Dick [Richard] Hong was here.

DR. RAUH: Now you're getting to my era of the late 50s, when I became a resident. Nancy, I think, was a couple of years ahead of me. I was there from 1958 to 1960 for my residency and Dick Hong was there. I think he had gotten sick and it took longer for him to finish the program, but he was here then, very much so. By that time, this is late 50s as I already said, you had a department, department, formally a department of nephrology, I guess?

DR. WEST: No, not formally. Not a name.

DR. RAUH: Yes, but that was your field.

DR. WEST: Yes, yes, in fact, it was. I didn't mention the fact that when I came back from New York, I was associated with Sam [Samuel] Foman and, and Solly [Solomon] Kaplan. Solly was Sam Kaplan's brother.

DR. RAUH: Right.

DR. WEST: They both had contracted to be fellows under Sam Rappoport and I inherited them. Solly, in fact, was here before I was back from New York, and so the three of us worked together for probably two years and then Solly went to New York and Sam went to Iowa and then I got Don Cheek for two or three years. He and I did some good stuff with electrolytes in rats, and, but when he left, I made the decision to go into immunology.

DR. RAUH: Okay, hold on just a second.

[Pause]

DR. RAUH: What field was Solly Kaplan involved in? Dr. Foman too, for that matter.

DR. WEST: They were both interested in renal physiology. Solly had been interested in it in South Africa, before he came here. In fact, I don't know why he came with Sam [Rapoport]. I guess there were very few places where he could come in those days to get any kind of postgraduate training. He heard about this, and I guess his brother Sam had already signed up and arrived in Cincinnati before Solly did. In fact, Sam probably came as a member of the faculty while I was in New York and Solly came as a trainee while I was in New York. Sam had had training in cardiology in England before he came to Cincinnati. It was all in adult cardiology, but that was the way you trained in those days.

DR. RAUH: Was there any collaboration, or interest, if you will, across the street in our adult nephrology services?

DR. WEST: Well, there weren't any.

DR. RAUH: It didn't even exist.

DR.WEST: No.

DR. RAUH: Okay. We were way ahead.

DR.WEST: I don't think anybody special took care of [those patients].

DR. RAUH: It was the internists and family doctors who were taking care of people with renal disease

DR.WEST: Right, right. Across the street, they didn't have nephrosis, they didn't have acute nephritis; all they had was chronic nephritis. And that wasn't very interesting. There wasn't anything you could do for them. So we had the ones that you could do something for. Nephrosis, you could give ACTH [adrenocorticotrophic hormone], subsequently cortisone, subsequently prednisone. Acute nephritis, we knew how to take care of high blood pressure; that's how you treated that. So, actually, internists didn't develop the subspecialty of nephrology until Belding Scribner developed the dialysis machine; then nephrology was born.

DR. RAUH: Interestingly, I had acute glomerulonephritis in 1941. My pediatrician was Horace Stuart. Do you remember him?

DR.WEST: I never really met him, but I heard a lot about him

DR. RAUH: A character if there ever was one. He did not have an office. He didn't believe in having an office because that's the way children spread infectious diseases. But he not only made house calls like most pediatricians, he came to see me twice a day. I was kept at home by my parents, who were fortunate enough to be able to hire some nurses to take care of me. I lived out in Amberley [Ohio]; this was all rambling a little bit. But, God, I was sick for about a month with hypertension, incredible headaches. My kidneys never shut down, I'm sure of that

DR.WEST: You never had seizures?

DR. RAUH: No, thank God, I never had seizures. And after three or four weeks of vomiting and incredible headaches, I don't know what they gave me if anything for hypertension—God knows.

DR.WEST: Veratrum viride?

DR. RAUH: I think Stanley Simon, who was an internist, was called in just to see if he had any suggestions. But they kept me at bedrest for three months—I mean bedrest!

DR.WEST: You were lucky it wasn't longer. A lot of people were on bedrest for a year.

DR. RAUH: Really?

DR.WEST: Yes. That was the way you prevented chronic nephritis.

DR. RAUH: Was there any scientific reason for that at that time? Was that just sort of part of general medical care?

DR.WEST: Silly reasons. I think it had been demonstrated when you stood up your glomerular filtration rate dropped or something like that. The problem was that we couldn't define nephritis. Nephritis included what we now know as IgA nephropathy, acute nephritis which is post-strep, and early chronic nephritis like membranoproliferative nephritis. All three looked the same clinically. And so some of the patients who they thought had acute nephritis went on to have chronic nephritis and they thought they could prevent that by keeping them in bed. So everybody who had acute nephritis stayed in bed. When we finally got it all sorted out, it was obvious nobody really needed to stay in bed. But the acute nephritics got a reprieve about 1951 or 1952. Wallace McCrory in Philadelphia did a study where he let half of them up and kept half of them in bed and they all did the same; so that changed things.

DR. RAUH: Now one of your interests was trying to define these different diseases. That was major, right?

DR.WEST: Oh, yes. They were all in a great big wastebasket. Even nephrosis was part of it. There were some nephrotics that had elements of nephritis. Where did they fit into the picture? As we introduced ACTH some of them responded and some of them didn't. Why didn't they respond?

The first thing that was sorted out was membranous glomerulonephropathy. And that was sorted out because a fellow in Syracuse found a way to visualize the lesion of the glomerular basement membrane which was typical

of that disease. Clinically all those patients had a nephrotic syndrome, so you could separate out that one. Then renal biopsy came along and that was very confusing at the beginning; you didn't know what you were looking at.

DR. RAUH: About when do you think that was?

DR. WEST: About 1958-59. And we probably didn't do it here until the early 1960s. Actually the important part of renal biopsy is the electron microscopy [EM] and immunofluorescence. We didn't do EM's routinely until early 70s, and immunohistology gradually came in the late 60s. So we were all in the dark.

That's one of the areas that I was most interested in, separating out these different entities as they pertain to children. Children were a good place to do it because the onset of the disease was often in childhood. You saw them right off the bat, whereas the internist saw them after they had had it for years.

So we were doing biopsies and doing light microscopy in 1962, 1963, 1964. Jim [Arthur James] McAdams was the pathologist who followed Ben [Benjamin H.] Landing. Jim had, thank goodness, a very special interest in renal disease. He accumulated biopsies on a number of patients who had "nephritis." We had found in the laboratory that by immunoelectrophoresis you could distinguish one of the components of the complement system, which was C3. Judy [Judith] Forristal picked that one out from all the arcs that you see when you immunize a goat with whole human serum. She found the arc that corresponded to C3. There had been enough work done by [Hans J.] Müller-Eberhard at that time that we could distinguish that arc.

We'd often go down to the chemistry lab and steal serum that was left over and bring it up here and do immunoelectrophoresis on it just to see what we'd get. We found that patients that had nephritis often didn't have C3. So we wrote a paper demonstrating that C3 was absent in acute nephritis and it reappeared as they convalesced. It was known that serum complement measured functionally was in low concentration in acute nephritis, but nobody had ever looked at the individual components. So this was a paper that eventually resulted in every patient that had nephritis getting a C3 measurement. We were the first to show that it was low.

We had a number of patients with chronic nephritis who had low C3s. We didn't know what they were or how they related to acute nephritis. So I

made a list of those patients who had low C3s and another list of those that had normal C3s. I took it down to Jim McAdams and said, "I wonder if you'd pull these biopsies and see if you can see a difference between those with low and normal C3s." Subsequently, I forgot about it, not hearing from him. One day I got a phone call from him. He said, "I figured it out; I can tell." I said, "What can you tell?"

DR. RAUH: Some time had lapsed while he was doing this work.

DR.WEST: Yes, right. So that was the beginning of identifying membranoproliferative nephritis.

DR. RAUH: So this was an important collaboration between you and Jim McAdams.

DR.WEST: Oh, it was really great because he was great with EM and immunofluorescence and very interested. We had all the patients and the immunology up here and they meshed perfectly.

DR. RAUH: Were you getting any extramural funding?

DR.WEST: No, we did it all on institutional funding. Oh, I got little dubs and dabs, but nothing big.

DR. RAUH: I guess it was before the local office of the National Kidney Foundation.

DR.WEST: Yes, they were just struggling at that time and all they did was help patients out who had chronic disease. Even today, it is hard to get grants that allow you to study patients unless you have a lot of facts and can build a hypothesis and try to prove it. To do what we did, just getting specimens and seeing what we'd get, that doesn't go well with review committees. That is "gee whiz" research, which the NIH does not like. So we largely were funded by the institution.

DR. RAUH: Undoubtedly, the Children's Hospital Research Foundation was the institution and had some money to help you. Is that fair?

DR.WEST: Yes. At that time they had about 1.5 million dollars in hard money income from the foundation

DR. RAUH: As income?

DR.WEST: As income from the foundation; that was hard money. People like Albert Sabin were getting grants from the National Foundation for Infantile Paralysis. Joe [Josef] Warkany probably got a few from the NIH. I had a few in the 50s for physiology studies, often collaborating with Don Cheek, but didn't have very many in the 60s when I was starting in nephrology. Most of my really seminal observations were funded by the institution rather than outside.

DR. RAUH: Was research in nephrology going on anywhere else in the 60s?

DR.WEST: There were little groups around the world. Al [Alfred] Michael in Minnesota was interested.

DR. RAUH: He'd been a resident here.

DR.WEST: Right. Bob [Robert] Vernier was a student here and the two of them developed great interest in nephritis.

DR. RAUH: Did you meet together?

DR.WEST: Yes, we had an organization, the American Society of Pediatric Nephrology developed in the late 60s. Another one was Renee Habib in Paris; she was a pathologist and a very strong-minded person who published a great deal on both adult and pediatric nephritis. There was also [J.] Stewart Cameron in London, who had a great interest; he was an internist.

DR. RAUH: Did you travel to Europe?

DR.WEST: Yes. Henry Barnett at Albert Einstein [College of Medicine] developed the International Study of Kidney Disease [in Children] and solicited people in Europe, mainly. Never got many takers in this country except for us and, I guess, Galveston. He developed collaborative studies in nephrosis and membranoproliferative nephritis. The meetings were often in Europe and so I traveled there two or three times. I learned a little scientifically, but mainly I met all these people whose interests were the same as mine. We met in Vienna and Paris.

DR. RAUH: Meanwhile, you were training people here. I would guess there weren't many places that were doing that in nephrology.

DR. WEST: No, that's right. Well, there weren't many people who wanted to become nephrologists. The thing that really stimulated applications for fellows was our paper that emanated from Jim McAdams distinguishing between these two group of nephritides. We wrote the paper in 1965 in the *Journal of Pediatrics* and it created quite a stir. I think that sort of put us on the map. Whenever, subsequently, people in another institution would find a paper with nephritis they would say, "Well, what about C3? Does it fit with what Clark West is talking about in Cincinnati?" and so forth. So that was what brought us a lot of fellows. Subsequently, Roger Spitzer came as a fellow and then stayed on.

At the end of the 60s, we had an antibody which showed an arc. Well, it gets complicated because C3, when it breaks down, breaks into two pieces and you can see two arcs. This antibody showed the native C3, but that disappeared when you aged the serum. It was a way to show whether you had active C3 in your serum.

Roger Spitzer got the idea that maybe there was something in the serum of these patients, which caused C3 to break down. So he mixed serum from the normal and the nephritic, incubated it, and then did immunoelectrophoresis with this antibody. He showed that the antigen to which this antibody was directed disappeared during the incubation. If you incubated for different intervals you could show that it gradually disappeared. So there was something in the circulation of those patients which was breaking down C3 in vivo.

We tried to isolate it and identify it and finally wrote a paper about it that was accepted in *Science*. We called it the C3 nephritic factor or C3 NeF. That put us on the map too. Everybody was sure that that was the cause of nephritis, that we had found the agent. I remember there was a guy in Wisconsin who was in renal physiology. When this came out he was so sure immunology was the way to go that he quit research altogether and became a clinician. He just threw up his hands.

My son at that time was looking for internships and he went to Wisconsin, to Madison. He was trying to find an office and was standing by an elevator and he asked this fellow where the office was. The guy said, "Well, why don't you get on with me? I'm going there." So on the elevator he said,

“Where are you from?” Mike said, “Cincinnati,” he said, “Oh that’s where they just found out about nephritic factor!” This sort of floored Mike.

DR. RAUH: Word spread very quickly. Did you have people come here?

DR.WEST: Yes, Dr. J. Stewart Cameron in London sent me all kinds of serum to measure. We had a lot of visitors from abroad at that time. That was fun, except that the wind went out of the sails when everybody found that they couldn’t demonstrate any correlation between nephritic factor and the progress of the disease. People began to think it was an epiphenomenon.

DR. RAUH: What do you mean by epiphenomenon?

DR.WEST: It was just something that happened by the way in these patients. It wasn’t causative of the disease. It was related somehow to the disease but didn’t cause it. It was associated with it and was helpful in diagnosis. We were able to measure it and we’d get serum specimens from other places because they wanted to know whether it was present or not, but once they got the information they didn’t know what to do with it. We didn’t really know what to do with it either.

DR. RAUH: Just as an aside, now, you had three children. How many went into medicine?

DR.WEST: Well, my daughter became a nurse. My oldest son became a doctor. My middle son became a risk manager for hospitals; he was a lawyer.

DR. RAUH: The one that is a doctor, what is his field?

DR.WEST: Infectious disease.

DR. RAUH: Is he in academic medicine?

DR.WEST: No, he’s in practice in Topeka, Kansas. He sees internal medicine patients and infectious disease. He tries to see mainly infectious disease. He is so busy that he has to limit his practice.

DR. RAUH: I see. Let’s stop for a second.

DR. RAUH: Clark, let's turn our attention to your work with the NIH site visits. According to your curriculum vita, this began in 1965. Can you remember when you first did that?

DR.WEST: I was asked by the NIH to join the General Clinical Research Centers committee. The committee had 12 members, two of whom were pediatricians. They awarded Clinical Research Centers [CRC]and passed on the reapplication of centers when they were up for renewal. The committee met three or four times a year in Bethesda to discuss the Centers and in the intervals between meetings you would make site visits. The site visit team usually consisted of two members of the committee, sometimes just one, and people who were into the areas of the CRC that you were visiting. The site visits usually lasted for a whole day and you wrote a report at the end. When the committee met the next time you reported on that visit. It was a very interesting time because CRCs were just being established. Not very many were pediatric, probably two or three. I had the opportunity to visit many institutions and came in contact with many investigators. We even went on one occasion to Hawaii on a site visit.

DR. RAUH: You said you were appointed for a five year period. But you could be reappointed?

DR.WEST: Nobody wanted to be reappointed. After five years you had had enough. I was appointed to another committee at the end of five years. I was on the training grant committee, but that only lasted for a short time because of administrative changes in Bethesda. The committee was disbanded. I never was a member of a real NIH study section.

DR. RAUH: You went on a long time doing the site visits. But that was wearing different hats at the NIH?

DR.WEST: Well, I did some site visits ad hoc. I'd be invited because of my expertise. Separate from the CRC, they were NIH site visits but not involved with CRCs. They would be involved with program project grants and that sort of thing.

DR. RAUH: That went from 1965 to 1986 according to your CV.

DR.WEST: You are mixing up some things. It was solid CRC stuff from 1965 to 1970 and thereafter it was just ad hoc visits.

DR. RAUH: Almost like being a visiting professor.

DR.WEST: Yes, you went with a committee and they usually had projects that were in your line of interest.

DR. RAUH: Was that something like our yearly review here of our research?

DR.WEST: No, this would be people that applied for a program project grant. There would be many investigators involved, each in different areas but they would in some way be related. The overall grant would give them funds for core facilities and that sort of thing. If somebody among the investigators was interested in nephritis, they would invite me to be a member of the committee to evaluate that. So I went on a quite a few of those ad hoc visits.

DR. RAUH: Is it possible for you to say what part of your career you enjoyed the most? Did you enjoy seeing patients?

DR.WEST: Yes, I did because they were often chronic patients and I'd get to know them and their families. There was quite a period when I saw every patient every time they visited this institution and, of course, saw them when they were inpatients. Probably for a period of 12 years that was the case. I had associates that worked with me in the clinic, but they would come and go. When they had a patient, they would see him but before he left I would see him also. So that helped me a great deal to sort out these diseases, because you could remember patients and think about having seen this before. Then you go back and read the old chart and see if it really was the same.

DR. RAUH: In a way this was like what Joe Warkany did, wasn't it?

DR.WEST: Yes, he probably saw every child that had some kind of congenital problem. He kept copious notes and had a good memory and he could put them together.

DR. RAUH: Did you keep separate files on patients from the hospital chart in your department?

DR.WEST: Yes, we did that from way back.

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SECOND TAPE, FIRST SIDE

DR. RAUH: We were talking about your seeing all the patients here for eleven or twelve years.

DR. WEST: All are nephrology patients here.

DR. RAUH: Getting to know them extremely well and, and their families and also sounds like you could tie up everything. I mean, you had the data available on the clinic or the lab, the history of that disease I suppose.

DR. WEST: Right, right. And they allowed you to try different therapies and to assess whether they were doing any good because you saw the patient every time he or she came, and often in between times you would get phone calls from the mother. We identified, as I said earlier, MPGN using Jim McAdams' skills and the C3 level. Faced with kids who were going down the drain with chronic nephritis you had to think of things you might do. We had had a lot of experience using cortisone in patients with nephrosis, and so we decided to use prednisone in these patients as well. If used daily in high dose, they have serious side effects.

So we, from the very beginning, gave it every other day, and seeing them every time they came in, you could see they were getting better and some of them got completely well, lost their abnormal urine and by 1975, we had accumulated five patients, who had responded, and so we wrote a paper. Mc Adams was the first author. We had serial biopsies, clinical data and C3 levels all indicating that they got well, but it wasn't really accepted because we had no controls who did not receive the prednisone. But how do you get consent when, if truthful, you have to tell them that in five patients the treatment worked? So for about 10 years, we successfully treated many patients with the alternate day regimen while other centers, not able to understand how our regimen would possibly work, used supportive treatment without much success.

I did join up with the International Study of Kidney Disease in Children and they, being doubting Thomases, could mount a controlled study. But I wasn't too happy with the protocol they developed. The writing of a protocol, with say 10 or 12 other nephrologists is very difficult because there are all kinds of prejudices among those people so it didn't turn out as I would like,

but it was better than nothing. The overall study was not very supportive of the regimen, mainly because in Europe the patients would be put on the regimen by a pediatric nephrologist but subsequently they would see a general pediatrician. They often had hypertension and the pediatrician would assume that the prednisone was causing all this hypertension. He wouldn't treat the hypertension, because he didn't know how to treat hypertension, so he would stop the prednisone whereas we would have done the opposite. Such a case would be counted as a failure. The results were in favor of the regimen, but not overwhelming. And we now know that there are three different types of this nephritis, and that two of them respond. One of them responds very well, one responds moderately, and the third is very difficult. And so we are studying a mixed bag of diseases.

It comes down to the fact that the regimen is effective, though to a variable degree depending on the type of disease you have. So, to get back to your point, I am seeing a patient every time he or she comes in. It was extremely helpful, because I didn't have to rely on somebody else making a decision as to whether they are better or not. I could see they were better. In other institutions, patients were not seen by the same doctor each time.

DR. RAUH: Then I assume as, as you had more fellows, they work very closely with you or with these patients so that you . . .

DR. WEST: They got to know them, too.

DR. RAUH: Right.

DR. WEST: And I would still see them when they came in, but after 1975 or 1978 a lot of them were followed by Paul McEnery.

DR. RAUH: Tell me little bit about your laboratory experience.

DR. WEST: We began to work in immunology in the early 1960s and at that time immunoelectrophoresis was all the rage in Europe. This method allowed you to visualize all the proteins in serum but to do this you needed an antiserum that was polyvalent. We made use of our animal quarters by developing a herd of goats which we immunized. With their antiserum, one could see all kinds of proteins in serum, 40-60 of them, most of which we could not identify. We used the method on patient's serum which we got from the chemistry lab. We began writing little notes in the chart about what we saw. Dr. Weech, the chairman, was intrigued by the method and

urged us to make this method part of our diagnostic armamentarium. We called it the IEPA. I ended up every evening dictating interpretations of IEPAs.

DR. RAUH: Like a radiologist going over his or her results.

DR. WEST: Right.

DR. RAUH: Or the pathologists for that matter. But it really paid off over the years.

DR. WEST: Yes, we were able to charge for it. The method has evolved so that now the actual protein concentration is reported. The serum is reacted with an antibody to a single protein and the amount of precipitate formed is measured. It is now called a serum protein profile or SPP.

DR. RAUH: Has anybody at pathology taken Jim's place?

DR. WEST: Yes, Dave [David] Witte. He has great interest in nephropathology but he has so many interests that he cannot concentrate on it the way Jim did. Jim was a luxury.

DR. RAUH: I think Jim kept that up even after he retired.

DR. WEST: Oh, yes.

DR. RAUH: He got hired back like you.

DR. WEST: Yes. He and I wrote at least five papers after he retired. He was a gruff old guy and had a weird sense of humor in many respects, but he was really a gold mine of information.

DR. RAUH: Clark, lets talk about your role on the Board of Trustees Research Committee. You told me you have been on that committee from the day you arrived?

DR. WEST: Yes.

DR. RAUH: [Laughs]

DR. WEST: I have been on it since its inception in 1972 or 1973. Ed [Edward] Pratt, the chairman of our department, decided that the Board of Trustees needed more input into the doings in the Research Foundation. And so a committee of the board was developed, which would meet about eight times a year to deal with Research Foundation matters. I think the first chairman of that was David Black. Jim Ewell was on it very early. Jim has been on it just about as long as I have.

DR. RAUH: He still comes to meetings?

DR. WEST: Yes.

DR. RAUH: Jim Ewell at one time was, what, CEO of Procter and Gamble?

DR. WEST: No, he was a vice president in charge of production.

DR. RAUH: I see. David Black, is he an attorney?

DR. WEST: No that's his brother.

DR. RAUH: Okay.

DR. WEST: David used to be with Cincinnati Machine Tools.

DR. RAUH: Business guy?

DR. WEST: Yes, he's a business man. And I think he then became a consultant after that, knowing machines.

DR. RAUH: So this committee has always been a mixture of full time faculty, board members and non-board members with expertise in science or administration.

DR. WEST: And subsequently we got people like Reggie [Reginald] Tsang and Mark Sperling and some of the other faculty to come on. But, many of the members were lay people who came from Procter and Gamble, etc. They didn't have to be a member of the board to be on it. Another who has been on it a long time is George Rieveschl.

DR. RAUH: The members imparted very creative thinking?

DR. WEST: Yes.

DR. RAUH: And also had a practical responsibility for guiding the research.

DR. WEST: They developed a trustee grant. They would give money to young, struggling investigators who didn't have enough background to be eligible for an RO1 [Standard Research Grant] from the NIH. They needed time in the lab and a mentor. Subsequently, they started the Procter Scholar Program for training in research after fellowship. This training was to hone their research skills further and make them more competitive. The candidates had to have a mentor. It was competitive. The scholarship lasted three years.

DR. RAUH: It's been a marvelous thing, a marvelous mechanism of funding.

DR. WEST: When Geoffrey Place became chairman he was still very active in P&G. He was vice president of the research, so he didn't have a great deal of time to devote to us. Subsequently he stepped down from that position and became head of pharmaceutical research and again was pretty busy. But eventually he retired, and was able to spend a lot of time with the committee and did a lot to change the way we budget, did a lot to change the way our research was overseen by outside reviewers, did a lot to develop the funding sources that I mentioned, Trustee Grants and Procter Scholar Program, and in general has made the place an institution which has few parallels. It's very well run.

DR. RAUH: How often does the committee meet?

DR. WEST: I think it's about seven or eight times a year.

DR. RAUH: And you're the secretary for the committee.

DR. WEST: Right.

DR. RAUH: Let's talk a little bit about your retirement. You retired, sort of, in 1989, and you had a conversation with Bill [William K.] Schubert then. He was chairman of our department in 1989.

DR. WEST: He was the president. He was the chairman, and he was director of the Research Foundation.

DR. RAUH: You said he called you?

DR. WEST: Yes.

DR. RAUH: Just reiterate that again, if you would.

DR. WEST: Well I had a few weeks before I formally became a retiree.

DR. RAUH: Right.

DR. WEST: He said I should stay on, and continue to do things that I done before, the committee, secretaryship, and in addition do research and whatever I wanted to do. And we developed the arrangements.

DR. RAUH: And what is the responsibility for the in-house review of grant applications?

DR. WEST: I was originally the person that all the grants came to and I assigned them to appropriate people in the department to review. Subsequently, it's been done in a different way. When I retired they changed the system, but I remained as one of their reviewers.

DR. RAUH: You get some grants that are not in your general field?

DR. WEST: Yes, I often do.

DR. RAUH: I think that could be an advantage. You read them not only for a scientific reason but also for clarity, exposition, whether it is tiresome to read them, whether they've got too many words, whether they express themselves well. Quite often, we try to improve their English and you can do a lot for applications from the person who is not used to writing them or from somebody whose native language is not English.

DR. WEST: This is invaluable. I can call a person who has written something and talk face to face, one to one. It has been very nice because they are never resentful of your comments. They always realize that they are very close to something and in writing about it they cannot bring it out. They understand perfectly, but to write it is difficult.

DR. RAUH: Have you been editor of a journal during all that time?

DR. WEST: Never an editor, but I was on the editorial board.

DR. RAUH: Many of them.

DR. WEST: Yes, two or three I believe. That took a lot of time because on the editorial board of the *Journal of Pediatrics* you are given a lot of papers to review.

DR. RAUH: This was before you could do it on the computer

DR. WEST: Yes, I would dictate.

DR. RAUH: Do you use the computers to write your reviews now?

DR. WEST: I don't, no. I still dictate them.

DR. RAUH: You dictate.

DR. WEST: I can do that on the computer; I have done some of the work.

DR. RAUH: But your system, your own way of doing this, is to dictate them and then have someone type them on the word processing.

DR. WEST: Right, yes.

DR. RAUH: Tell me about your routine, so that we have this on the record here. How much time are you spending?

DR. WEST: It varies, obviously. It changes as the year goes by, with the season.

DR. RAUH: You are willing to do it for anyone?

DR. WEST: Anyone I choose to do it for; anyone who asks because I am on that list.

DR. RAUH: Are you doing any laboratory work?

DR. WEST: Yes.

DR. RAUH: Could you talk a little about that now? We are in 2002, 13 years after you formally retired?

DR. WEST: Yes. Right.

DR. RAUH: What is your specific project?

DR. WEST: We have always been able to measure the nephritic factor here but it requires an antibody which is difficult to make. We made a lot of it many years ago having a herd of goats immunized. It is not commercially available and the supply is running low, and when it disappears we would not be able to start up the factory; so I have been working in the last two to three months to develop an alternative method for the nephritic factor. There is a screening method that was developed in Germany and I am having some problems but I think I will be able to do it.

DR. RAUH: Why not re-immunize the goats?

DR. WEST: Well, our current animal quarters are devoted almost exclusively to mice.

DR. RAUH: I see.

DR. WEST: I think we've got about 50,000 mice up there.

DR. RAUH: There is no room for goats?

DR. WEST: It isn't just the goats. Purified antigens must be made to inject in the goats and the resulting serum has to be fractionated.

DR. RAUH: How do you spend your leisure time? You told me the other day when I was here asking you to do this interview that you enjoyed gardening. You live out in Harrison now. How many acres do you have?

DR. WEST: I don't have a whole acre. I went through phases, first rock gardens.

DR. RAUH: Rock gardens are pretty complicated.

DR. WEST: Yes.

DR. RAUH: They take a great deal of time.

DR. WEST: Right.

DR. RAUH: Do you know Jim [James] Englert?

DR. WEST: Oh, yes.

DR. RAUH: Are you going to collaborate with him?

DR. WEST: Jim is a rosarian.

DR. RAUH: Okay.

DR. WEST: But I did get an interest in conifers and began collecting them and substituting them for flowering plants because they look good all seasons of the year and you don't have to deadhead them. There are probably a thousand different cultivars.

DR. RAUH: Is your wife a gardener too?

DR. WEST: Yes she was interested but not to the extent I was. Harrison is great for gardening because the soil is fertile and I have plenty of space. I have got the hobby of raising them from seed and developing new cultivars, something like a hybridizer.

DR. RAUH: That's great. You covered a lot of topics. Is there any other area that you would like to talk about? It seems this institution we are both working in changed forever over all these years?

DR. WEST: When I came it was small compared to the present size. There was Sam Rapoport, supervisor of chemistry lab. George Guest, Fred [Frederic] Silverman, Bob [Robert] Lyon, and Joe [Josef] Warkany. Albert Sabin was the virologist and Merlin Cooper was the bacteriologist and we had a part-time pathologist

TAPE 2, SIDE 2

DR. RAUH: We're talking about the faculty that were here when you were in your early years. You said there were eight or ten of them. Maybe we left someone out.

DR. WEST: Yes. We had no full-time pathologist. But there was Frederic Silverman, the radiologist, and Bob [Robert] Lyon who was the vice chairman of the department, and dabbled in cardiology. A year or two after I came, Sam [Samuel] Kaplan came to run the cardiology unit. So, from that skeleton crew of about 10 faculty members, we have now expanded to something like 200. The whole institution has exploded in size. The first expansion after I came was the addition of a floor on this building, the old Research Foundation. The aluminum cap back there was built to house hematology and biochemistry. Subsequently, biochemistry folded and we moved up into that space. Hematology moved to the first floor. Subsequently, in 1967, Joe Warkany got interested in the fact that the NIH was giving out funds to develop institutes to study mental retardation, largely because President [John F.] Kennedy had a sister who was mentally retarded. Joe urged that we apply for one of these institutes. The result was the Institute for Developmental Research, which was funded for two million dollars by the NIH and one million by the Children's Hospital. And then there was really no expansion until the early 1990s when the large research building was built contiguous with the old research foundation. That actually doubled our research space and made us cast a greater shadow among pediatric research institutions. In fact, we were only slightly below the Children's Hospital of Philadelphia and the Children's Hospital in Boston in research funding. They're slightly above us, but we're catching up. We will pass them in a couple of years.

DR. RAUH: Tell me, Clark, how you spend you leisure time. I know that you love gardening. Just talk a little bit about that if you would.

DR. WEST: Well, since I was four years old I guess, I've liked gardening. I used to go out and dig out wild plants and put them in pots and bring them home. I remember my father planted a windbreak, Norway spruce, and when you planted something like that you put potatoes deep in the hole, because when they rotted, they supplied moisture to the plant. Well, some of them did not get in too deep and they would sprout and I'd dig up sprouted potatoes and put them in pots. So I was, from the very beginning, interested in gardening and went through a lot of phases. I was, for a time, interested in roses. Subsequently I was interested in rock gardening and perennials, and then, probably 20 years ago, got interested in dwarf conifers and have become a collector and interested in raising them from seed and developing new cultivars. So it's been interesting business. I was a vice president of the American Conifer Society for a while and met a lot of interesting people who

are interested in the same thing I am. I took a trip to England one year with a group of enthusiasts. We visited all kinds of gardens where dwarf conifers were prominent up in England and Scotland.

DR. RAUH: Have you done any other traveling during the 13 years of “retirement”?

DR. WEST: No I haven’t traveled much since I retired.

DR. RAUH: Did you ever do an elder hostel type of trip?

DR. WEST: No, never did that. We did quite a bit of traveling, but nothing real exotic.

DR. RAUH: Any of your children live here in the Cincinnati area?

DR. WEST: My daughter does. One son lives in Atlanta and one is in Topeka, Kansas.

DR. RAUH: Right. Well, I’ve really enjoyed this. I hope you have. You couldn’t have been more accommodating.

DR. WEST: Well, it’s fun to talk about yourself.

DR. RAUH: Of course. [Laughs]

DR. WEST: You don’t get that opportunity very often.

DR. RAUH: That’s right. Why don’t we stop here? I don’t think we’ll need to have another session. When you get this, maybe there’ll be some things you want to add on, which you can just write in. I thank you very much.

DR. WEST: Thank you.

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CURRICULUM VITAE

CLARK D. WEST, MD

Date of Birth: July 4, 1918

Place of Birth: Jamestown, NY

Citizenship: United States

Personal Information: Married. Children: Three

Mailing Address: Children's Hospital Medical Center
333 Burnet Avenue
Cincinnati, OH 452293039

Academic Training

1940 College of Wooster, Wooster, OH, AB.

1943 University of Michigan Medical School, MD, cum laude

1943-44 Internship, Surgical Service, University Hospital, Ann Arbor

1944-46 Resident, Pediatrics, University Hospital, Ann Arbor

1948-49 Fellowship, Pediatrics, Children's Hospital Research Foundation
(supported by funds from Rockefeller Foundation Grant for Veterans

1949-50 Senior Fellow in Pediatrics, National Research Council at
Children's Hospital Research Foundation, Supervisor: Samuel
Rapoport

1950-51 Senior Fellow in Pediatrics, National Research Council at
Bellevue Hospital, Cardiopulmonary Laboratory, Chest Service,
Supervisor: Andre Courmand

Professional Positions

1951-55 Assistant Professor of Pediatrics, University of Cincinnati
College of Medicine

1955-62 Associate Professor of Pediatrics, University of Cincinnati
College of Medicine

1962-89 Professor of Pediatrics, University of Cincinnati College of

Medicine

1989- Professor Emeritus

1951- Research Associate, Children's Hospital Research Foundation

1951-60 Director, Division of Physiology, Children's Hospital Research Foundation

1960-74 Director, Division of Immunology, Children's Hospital Research Foundation

1974-89 Director, Division of Nephrology, Children's Hospital Research Foundation

1963-89 Associate Director, Children's Hospital Research Foundation

1952-89 Attending Pediatrician, Children's Hospital

1955-89 Attending Pediatrician, Cincinnati General (University) Hospital

1952-89 Director of Nephrology Clinic, Children's Hospital Medical Center

1952-89 Director of Clinical Chemistry Laboratory, Children's Hospital Medicine Center

Army Service

1946-47 First Lieutenant to Captain, Army Medical Corp., Chief Medical Officer, 332nd General Dispensary, Eighth Army, Yokohama, Japan

Memberships

1940-43 Phi Chi Medical Fraternity

1943 Presiding Senior

1943- Alpha Omega Alpha Honor Medical Society

1953- Society for Pediatric Research

1957-58 Member of Council

1958-62 Secretary-Treasurer

1962-63 President-elect

1963-64 President

1954- American Physiological Society

1960- American Pediatric Society

1961- Midwestern Society for Pediatric Research

1966-69 Trustee, Journal of Pediatrics Education Foundation

1962- American Association of Immunologists

1967- American Society of Nephrology

1968-	American Society of Pediatric Nephrology
1970-72	Member of Council
1972-73	President-elect
1973-74	President
1968-75	International Study of Kidney Disease in Children—participant
1974-89	International Pediatric Nephrology Association
1965-69	General Clinical Research Center Committee, Division of Research Facilities and Resource, National Institutes of health
1972-73	Urology and Renal Disease Training Committee, National Institutes of Arthritis and Metabolic Disease, National Institutes of Health
1989-	International Plant Propagators Society

Editorial Boards

1960-61	American Journal of Physiology and Journal of Applied Physiology
1960-79	Journal of Pediatrics
1977-88	Kidney International
1990-	Clinical Nephrology
1991-	Kidney

Reviewer for:

American Journal of Diseases of Children
 American Journal of Kidney Disease
 American Journal of Medicine
 American Journal of Pathology
 Clinical Immunology and Immunopathology
 Clinical Nephrology
 Clinical Pediatrics
 Diabetes
 Journal of Clinical Investigation
 Journal of Laboratory and Clinical Medicine
 Journal of Pediatrics
 Journal of American Society of Nephrology
 Journal of Pediatric Nephrology
 New England Journal of Medicine
 Nephron

Pediatrics
Pediatric Research

Committee Memberships:

Children's Hospital and Department of Pediatrics

1966-67	Member:	Library Committee
1966-	Member:	Clinical Research Center Committee
1966-69	Member:	Executive Committee of the Medical and Dental Staff
1967-73	Member:	Human Investigation Committee
1967-70	Member:	Medical Records Committee
1967-73	Member:	Intensive Care Committee
1969-71	Member:	Patient Care Committee
1969-	Member:	Research Committee of the Board of Trustees
1971-73	Member:	Interne and Resident Committee
1972-80	Member:	Medical Administrative Council
1972-76	Chairman:	Parking Committee
1973	Member:	Personnel Committee
1973	Member:	Rachford Lecture Committee
1974	Member:	Search Committee for Director of Ambulatory Services
1974-89	Member:	Budget (Finance) Committee of Board of Trustees
1976-77	Member:	Cost Containment Committee
1978	Member:	Festschrift Committee honoring E. L. Pratt, MD
1979-89	Member:	Executive Board of Laboratory Directors
1981-82	Member:	Cost Containment Committee
1983-84	Chairman:	Search Committee for Directory of Division of Basic Science Research
1982-	Member:	Historical Committee of Medical and Dental Staff
1982-83	Chairman:	Steering Committee of Children's Hospital Research Foundation
1987	Member:	Long Range Planning Committee
1989	Member:	Values and Implementation Task Force

University of Cincinnati College of Medicine

1966	Member:	Search Committee for Director of Department of Biochemistry
1966-68	Member:	Graduate Group Committee
1966	Member:	Subcommittee of Curriculum Committee on Acid Base and the Urinary System
1966-70	Member:	Research Committee
1967-70	Member:	Clinical and Basic Science Curriculum Committee
1969-73	Member:	Faculty Committee on Research
1968	Member:	Con-Med Committee
1970	Member:	Retreat Committee
1973-74	Member:	Search Committee for Director of Laboratories
1974	Chairman:	Committee to Evaluate the Department of Medicine
1974-77	Member:	Hoxworth Blood Center Advisory Committee
1974	Member:	Search Committee for Director of Department of Pathology
1974	Member:	Search Committee for Director of Department of Dermatology
1975-78	Member:	Promotion and Tenure Committee
1978-80	Chairman:	Promotion and Tenure Committee
1978	Member:	Immunology Council
1979-82	Member:	Clinical Laboratory Advisory Committee
1980-87	Member:	Academic Leave Committee
1980	Chairman:	Search Committee to recruit Director of Department of Microbiology
1981	Member:	Deans Advisory Committee for Funding Requests (Flexible Funding)
1983	Member:	Ad Hoc Committee of the Faculty
1990	Member:	Daniel Drake Award Committee

Community Organizations and Committee Memberships:

1967-81	Member:	Medical Advisory Board, Kidney Foundation of Greater Cincinnati
1967-72	Member:	Ad Hoc Committee on Treatment of End-Stage Renal Disease of the Ohio Valley Regional Medical Program
1970-73	Member:	Drug Committee of the Kidney Foundation of Greater Cincinnati

1975-76	Member:	End-Stage Renal Disease Committee of CORVA
1976-77	Member:	End-Stage Renal Disease Network Council- Medical Review Board
1987	Chairman:	Initial Inquiry Committee Concerning Misconduct in Research at the Gamble Institute for Medical Research, The Christ Hospital
1988	Member:	Investigating Committee Concerning Misconduct in Research at the Gamble Institute for Medical Research

Trainees: (Chronological order)

Dr. Solomon A. Kaplan, Professor of Pediatrics, University of California, Los Angeles School of Medicine, Los Angeles, CA.

Dr. Samuel Fomon, Professor of Pediatrics, University of Iowa College of Medicine, Iowa City, IA.

Dr. Donald B. Cheek, Director of the Children's Hospital Research Foundation, Royal Melbourne Children's Hospital, Melbourne, Australia. (deceased)

Professor Jules Traegher, Clinique Universitaire de Nephrologie et Maladies Metaboliques, Hopital de l'Antequaille, Lyon, France.

Dr. Richard Hong, Professor of Pediatrics, University of Wisconsin Medical School, Madison, WI.

Dr. Nancy Holland, Professor of Pediatric, University of Kentucky School of Medicine, Lexington, Kentucky. (retired)

Dr. Janice McConville, private practice, Cincinnati, Ohio.

Dr. J. D. Northway, Clinical Professor of Pediatrics, University of California, San Francisco School of Medicine; President and Chief Executive Officer, Valley Children's Hospital, Fresno, CA.

Dr. Roger E. Spitzer, Professor of Pediatrics, State University of New York Health Science Center at Syracuse College of Medicine, Syracuse, NY.

Dr. Paul T. McEnery, Professor of Pediatrics, University of Cincinnati College of Medicine.

Dr. Enrique H. Vallota, formerly Associate Professor of Pediatrics, University of Cincinnati College of Medicine. Now in private practice, Calexico, CA.

Dr. Edward J. Ruley, Professor of Pediatrics, George Washington University School of Medicine, Washington, DC.

Dr. Margot Mellies, Pharmaceutical Representative, E.R. Squibb & Sons, Inc., Princeton, NJ.

Dr. Bruce M. McDonald, Associate Clinical Professor of Pediatrics, Yale University School of Medicine and Senior Vice-President for Medical Affairs, Bridgeport Hospital, Bridgeport, CT.

Dr. C. Frederic Strife, Associate Professor of Pediatrics, University of Cincinnati College of Medicine.

Dr. Charles A. Davis, private practice, Cleveland, Ohio.

Dr. Robert J. Wyatt, Associate Professor of Pediatrics, University of Tennessee at Memphis College of Medicine, Memphis, TN.

Dr. Kikuo Itaka, Department of Pediatrics, School of Medicine, Kitasato University, Kanagawa-Ken, Japan.

Dr. Phillip L. Berry, Associate Professor of Pediatrics, University of Arkansas at Little Rock College of Medicine.

Dr. Dodson Creighton, private practice, LaJolla, CA.

Dr. Harold K. Marder, Wyeth Laboratories, Philadelphia, PA.

Dr. Michael R. Leone, Assistant Professor of Pediatrics, Oregon Health Sciences University School of Medicine, Portland, OR.

Dr. F. Bryson Waldo, Assistant Professor of Pediatrics, University of Alabama at Birmingham School of Medicine, Birmingham, AL.

Dr. Elizabeth C. Jackson, Assistant Professor of Pediatrics, University of Kentucky School of Medicine, Lexington, KY.

Dr. Cheryl Fryer, Assistant Professor of Pediatrics, Wright State University School of Medicine, Dayton, OH.

Dr. Andrea Zuckerman, Research Fellow, Division of Nephrology, Department of Medicine, New York Hospital Cornell University, New York City, NY.

Dr. Christopher Clardy, Assistant Professor of Pediatrics, Rush Medicine College, Chicago, IL.

Dr. Elizabeth Sheely, private practice, Highland Heights, KY.

Dr. Consuelo Restrepo de Rovetto, University Hospital, Cali-Columbia, South America.

Dr. Cynthia Pan, Assistant Professor of Pediatrics, Medical College of Wisconsin, Milwaukee, WI.

Dr. William Varade, Assistant Professor of Pediatrics, University of Rochester School of Medicine and Dentistry, Rochester, NY.

Dr. Nancy A. Bishof, Assistant Professor of Pediatrics, University of Kentucky School of Medicine, Lexington, KY.

Service as an invited speaker, visiting professor, consultant or representative:

Invited participant: Conference on Mechanisms of Growth, Ross Laboratories. Sept 1961

Representative: Society for Pediatric Research at Centennial Celebration of National Academy of Science, Washington, DC. Oct 1962

Invited speaker: University of Texas Department of Pediatrics, Milk Preciptins, Dallas. Jan 1963

Invited speaker: Post-graduate course no. 1, American Academy of Pediatrics, Maturation of Immunity and Immunoglobulin Deficiency Diseases and Milk Allergy Syndrome, Seattle. Aug 1963

Invited speaker: Post-graduate program, Children's Hospital, Immunoglobulin Deficiency Diseases, Dayton, OH. Oct 1963

Invited speaker: Alumni conference, University of Michigan Medical Center, Immunoglobulin Deficiency Diseases, Ann Arbor. Oct 1963

Representative: Society for Pediatric Research at meeting to initiate publication of journal, "Pediatric Research". Jan 1964

Invited speaker: Ohio Chapter of the American Academy of Pediatrics, Newer Concepts of Glomerulonephritis, Columbus, OH. May 1964

Invited speaker: Annual meeting of National Kidney Foundation of Michigan, Alkylating Agents in the Treatment of Nephrosis, Detroit. May 1964

Invited participant: Post-graduate seminar on "Importance of Immune Mechanisms in Clinical Pediatrics", University of Wisconsin, Madison. April 1965

Invited speaker: Annual meeting Connecticut State Medical Society, "The Role of Immunology in Infection", Hartford. April 1965

Visiting Professor: Department of Pediatrics, University of Tennessee and Guest Speaker, Memphis Pediatric Society, Serum Beta-1C Globulin as an Aid in the Diagnosis and a Guide in the Therapy of the Nephritides; Benign Familial and non-Familial Hematuria; Cyclophosphamide in the Treatment of Lipoid Nephrosis; Management of Recurrent Urinary Tract Infection in Girls, Memphis. June 1965

Invited speaker: Thirty-Third Annual Convention of the American Society of Medicine Technologists, Immuno-electrophoresis, Cincinnati. June 1965

Invited participant: Round Table discussion, "Genito-Urinary Tract Infection". (with Dr. N. H. Holland) American Academy of Pediatrics, Chicago. Oct 1965

Chairman: Section on Renal Disease, Post-Congress Session of the International Congress of Pediatrics, Kyoto, Japan. Paper: Correlation of Serum Complement Levels with Renal Biopsy Observations in Chronic Glomerulonephritis. Nov 1965

Invited speaker: Scioto County Medical Society, Diagnosis and Management of Urinary Tract Infection in Girls, Portsmouth, OH. Feb 1966

Invited speaker: Alumni Post-graduate Convention, Loma Linda University, Chronic Glomerulonephritis in Children and Recurrent Urinary Tract Infection in Children, Los Angeles. March 1966

Tenth Lee Forrest Hill Lecturer: Pediatric Conference of the Raymond Blank Hospital, The Auto-Immune Basis of Chronic Glomerulonephritis: Implications for Therapy and Recent Advances in the Diagnosis and Therapy of Pyelonephritis, Des Moines. April 1966

Invited speaker: Brown County Medical Society, Management of Diarrhea in Infants and Children, Georgetown, OH. June 1966

Representative: Clinical Research Center Committee of the NIH: Meeting of the Consultants of the National Institutes of health at Bethesda, Maryland. Aug 1966

Invited speaker: 121st Annual Meeting, Northwestern Ohio Medical Association, Management of Diarrhea in Infants and Children, Lima, OH. Sept 1966

Invited speaker: Clark County Medical Society, Urinary Tract Infection in Children, Springfield, OH. Oct 1966

Invited speaker: Staff Meeting of Kettering Hospital, Renal Tubular Acidosis, Kettering, OH. Nov 1966

Invited speaker: Meeting of Dayton Pediatric Society, Current Concepts in Etiology and Therapy of Nephritis in Children, Dayton, OH. Nov 1966

Invited speaker: Meeting of the Nashville Pediatric Society, Newer Concepts in the Treatment of Lipoid Nephrosis in Children, Nashville, TN. Feb 1967

Visiting Professor: Department of Pediatrics, Vanderbilt University, Immune Basis of Blomerulonephritis, Nashville, TN. Feb 1967

Invited speaker: Meeting of the Philadelphia Pediatric Society, A New Look at Glomerulonephritis in Children, Philadelphia. April 1967

Visiting professor: Department of Pediatrics, Rainbow Babies and Children's Hospital Western Reserve University, Silent Glomerulonephritis, Cleveland. April 1967

Invited speaker: Combined Conference of Internal medicine and Pediatric Nephrologists, Western Reserve University, Role of Complement in Glomerulonephritis, Cleveland, OH. April 1967

Invited speaker: Sixth annual Post-graduate Course, Maimonides Hospital, Diseases of Auto-Immunity in Pediatrics, Brooklyn. May 1967

Invited speaker: Meeting of West Virginia Medical Society, Medical Therapy of Chronic Urinary Tract Infection in Children, White Sulfur Springs. Aug 1967

Invited speaker: Post-graduate seminar of the American Academy of Pediatrics, A New Look at Glomerulonephritis in Children and New Concepts in the Treatment of Nephrosis, Oklahoma City. Sept 1967

Grand Rounds speaker: Department of Pediatrics, University of Kentucky Medical Center, Hyperelectrolytoma, Lexington. Nov 1967

Invited participant: Con-Med sponsored session on Immunohematology, Jewish Hospital, Immuno-electrophoretic Analysis, Cincinnati. Nov 1967

Invited speaker: Meeting of Tidewater Pediatric Society, Urinary Tract Infection in Children; Diagnosis and Treatment, Portsmouth, VA. Nov 1967

Invited speaker: Staff meeting of Portsmouth Naval Hospital, Portsmouth, VA. Mar 1968

Invited speaker: Staff meeting of Middletown Hospital, Renal Transplantation, Middletown, OH. May 1968

Invited speaker: Medical Education Luncheon, St. Elizabeth Hospital, Dayton. Sept 1968

Guest Lecturer: Akron's Children's Hospital, Akron, OH. Oct 1968

Invited speaker: Meeting of Fayette County Medical Society, Diagnosis and Treatment of Nephritis in Children, Connersville, IN. Nov 1968

Visiting Scientist: Department of Pediatrics, Albert Einstein College of Medicine, Bronx, NY. Jan 1969

Visiting Professor: Children's Hospital of Los Angeles and Los Angeles County General Hospital. Feb 1969

Invited speaker: Seventh Annual Teaching Conference, Children's Hospital, Glomerulonephritis: Recent Advances in Diagnosis and Treatment and Renal Transplantation in Children, San Antonio, TX. Mar 1969

Principal speaker: Meeting of American Society of Pediatric Nephrology, B₁C Complement: Biochemistry and Behavior in Renal Disease in Children, Atlantic City. May 1969

Invited speaker: Meeting of the Illinois Chapter of the American Academy of Pediatrics and the Session on Pediatrics, Illinois State Medical Society, Advances in the Diagnosis and Treatment of Pyelonephritis in Children, Chicago. May 1969

Member of Plenary Session Panel at national meeting of American Society of Nephrology, Immunosuppressive Treatment of Renal Disease, Washington, DC. Dec 1969

Visiting lecturer: Children's Hospital of Pittsburgh, Urinary Tract Infection and Acute and Chronic Glomerulonephritis, Dec 1969

Visiting Professor: St. Joseph Hospital, Role of Complement in Renal Disease, Phoenix, AZ. Dec 1969

Guest lecturer: Department of Pediatrics, Center for Health Sciences and Harbor General Hospital, Role of Complement in Glomerulonephritis, Los Angeles. Feb 1970

Invited speaker: Symposium on Immunologic Incompetence sponsored by Johnson and Johnson Institute for Pediatric Service, Serum Complement in Nephritis, Fort Lauderdale, FL. Feb 1970

Invited speaker: Meeting of West Virginia State Chapter of American Academy of Pediatrics, Urinary Tract Infection and New Developments in Glomerulonephritis, Morgantown, West Virginia. May 1970

Faculty member: Post-graduate course on "Acid-Base, Fluid and Renal Disorders", Columbia University College of Physicians and Surgeons, Babies Hospital, The Nephrotic Syndrome, New York City. May 1970

Invited speaker: Ninth Annual Symposium, Kidney Foundation of Michigan, Immunology and Immunosuppression in Nephritis, Ann Arbor. May 1970

Invited speaker: Post-graduate Conference of American College of Physicians, The Complement System and Complement in Glomerulonephritis, Mayo Clinic, Rochester, MN. Sept 1970

Invited speaker: Renal Symposium, Miami Valley Hospital, Immunology and Immunosuppression of Renal Disease, Dayton, OH. Nov 1970

Invited speaker: Annual Dinner of the Kidney Foundation of Illinois. Nov 1970

Invited speaker: Annual Post-graduate Symposium, Kidney Foundation of Illinois, Hypocomplementemic Glomerulonephritis, Chicago. Nov 1970

Invited speaker: First Upper Midwest and Wisconsin Kidney Foundation Symposium, Hypocomplementemic Glomerulonephritis, Madison, WI. Nov 1970

Invited speaker: Renal Seminar of the Mississippi Kidney Foundation, Jackson, MI. Mar 1971

Invited speaker: Symposium of Ohio Kidney Foundation, New Immunologic Mechanisms of Renal Disease, Cleveland. April 1971

Invited speaker: Post-graduate Course of the American College of Physicians. Hypocomplementemic Diseases, Cincinnati. June 1971

Invited participant: International Symposium on Pediatric Nephrology, Membranoproliferative Glomerulonephritis, Paris, France. Aug 1971

Invited speaker: Postgraduate Course in Pediatric Nephrology, Case-Western Reserve University, Hematuria and Proteinuria: Evaluation and Management, Cleveland. Oct 1971

Journal of Pediatrics Educational Foundation Lecturer, Children's Hospital, (5 lectures) Columbus, OH. Nov 1971

Invited speaker: Cornell Seminar on Nephrology, Cornell Medical Center, Hypocomplementemia and Glomerulonephritis, New York. Nov 1971

Invited participant: International Symposium on Glomerulonephritis, Royal Melbourne Hospital, The Natural History of Membranoproliferative Glomerulonephritis and its Relation to the Hypocomplementemia; Alkylating Agents in the Treatment of the Nephrotic Syndrome and Glomerular Morphology, Natural History and Treatment of Children with IgA-IgG Mesangial Nephropathy, Melbourne, Australia. Feb 1972

Guest speaker: Annual meeting of North Pacific Pediatric Society, The Serum Complement System and its Relation to Glomerulonephritis and Hematuria and the Nephritides: Advances in Diagnosis and Management, Portland, OR. May 1972

Moderator: Panel discussion held at a Symposium on Immunology, Veteran's Administration Hospital, Cincinnati. Mar 1972

Chairman and Organizer: Plenary Scientific Session of the American Society for Pediatric Nephrology, Washington. May 1972

Chairman: Workshop: Study of Renal Biopsies by Fluorescein Labelled Antibody at meeting of American Society of Pediatric Nephrology. May 1972

Invited participant: International Workshop on Immunosuppressive Therapy: Risk-Benefit Assessment of Cyclophosphamide Therapy in Renal Disease, New York. June 1972

Invited speaker: Symposium on Anti-globulin and Anti-Complement Reagents held during Transfusion Congress, The Application of Antisera Against B_{1C} globulin and its Reaction Products, Washington, DC. Aug 1972

Invited speaker: Symposium on Recent Developments in Nephrology, The Natural History of Membranoproliferative Glomerulonephritis, New York University School of Medicine, New York. Mar 1973

Member of Panel: Biological Implications of Pathways to the Complement System, Meeting of AAI and ASEP, FASEB, April 1973

Seminar Chairman: Seminar on Urinary Tract Infection, 8th Annual Indiana Multidisciplinary Child Care Conference, Indianapolis. May 1973

Moderated summation of papers presented at Plenary Session, American Society of Pediatric Nephrology. May 1972

Invited speaker: Symposium on Current Concepts of Clinical Problems, American College of Physicians, Complement Abnormalities in Glomerulonephritis, Cincinnati. May 1973

Invited speaker: Annual Pediatric Review, University of Kentucky, Current Concepts of Glomerulonephritis, Lexington. May 1973

First Harry A. Towsley Visiting Lecturer, University of Michigan Medical Center, Ann Arbor. Nov 1973

Invited speaker: Seminar on Current Therapy: Supportive Care, Scioto County Medical Society, Approaches to Fluid Therapy and Water Balance, Portsmouth, OH. Oct 1973

Principal Grand Rounds speaker: Department of Pediatrics, University of Louisville School of Medicine. Oct 1973

Principal Grand Rounds speaker: Veterans' Administration Hospital, Department of Internal Medicine, Madison, WI. Nov 1973

Invited speaker: Symposium on Kidney Disease and Critical Care, Central Ohio Chapter of American Association of Critical Care Nurses, Immunosuppressant Drugs in Renal Disease, Columbus, OH. Mar 1974

Invited speaker: Refreshers Course in Pediatrics, Cleveland Clinic Educational Foundation, Cleveland. Mar 1974

Invited speaker: Symposium on "Diagnosis and Treatment of Immunologically Mediated Disease", sponsored by the World Health Organization and the Department of Medicine, State University of New York School of Medicine at Buffalo, Membranoproliferative Glomerulonephritis, Buffalo. Sept 1974

Organizer of Plenary Session: Nature of the Immune Injury of the Glomerular Capillary, Third International Symposium on Pediatric Nephrology, Washington, DC. Sept 1974

Invited speaker: Conjoint Renal Conference, Albert Chandler Medical Center, University of Kentucky, Lexington. Nov 1974

Invited speaker: Seminar on Clinical Advances in Pediatrics sponsored by Danciger Institute of Memorrhah Medical Center and Children's Mercy Hospital, The Glomerulonephritides of Childhood and The Serum Complement System in Human Disease, Kansas City, MO. Nov 1974

Invited speaker: Meeting of New Jersey Nephrology Society and New Jersey Academy of Medicine, Hypocomplementemia in Glomerulonephritis, Teaneck, NJ. Nov 1974

Seminar moderator: Complement and Complexes in Mesangiocapillary Glomerulonephritis, New York Hospital, Cornell Medical Center. Dec 1974

Invited speaker: Meeting of New York Nephrology Society, Membranoproliferative Glomerulonephritis, New York, Dec 1974

Invited speaker: Seminar on Renal Disease, Downstate Medical Center, Brooklyn. Jan 1975

Panelist: Session on “Clinical Importance of Immunological Aspects of Renal Disease”, sponsored by Roche Laboratories, New York City. Jan 1975

Invited speaker: Symposium on Care of the Critically Ill Child, Acute Renal Failure in Children, The Children’s Medical Center, Dayton, OH. Mar 1975

Chairman: Subsection on Nephrology, meeting of American Pediatric Society, St. Louis. Apr 1976

Waldo E. Nelson Lecturer: Philadelphia Pediatric Society. May 1976

Consultant: Children’s Hospital National Medical Center, concerned with reorganization of Division of Nephrology, Washington, DC. May 1976

Invited speaker: Symposium on Renal and Urologic Disease in Children, The Cleveland Clinic Educational Foundation, Proteinuria and Hematuria, Cleveland. Oct 1977

Invited participant: International Symposium on Glomerulonephritis: Progression and Regression, C3NeF in Glomerulonephritis, Tokyo, Japan. Dec 1977

Guest speaker: Annual meeting of Kyushu Society of Pediatric Nephrology, Kurume, Japan. Dec 1977

Guest speaker: Meeting of Japanese Pediatric Society, Tokyo, Japan. Dec 1977

Visiting Professor: Department of Pediatrics, Case Western Reserve University, Cleveland. April 1978

Visiting Professor: Division of Nephrology, University of West Virginia Medical Center, Charleston. June 1978

Invited speaker: Scientific Session in honor of James L. Wilson, MD, University of Michigan Medical School, Glomerulonephritis, Complement and Immune Complexes, Ann Arbor. Sept 1978

Invited speaker: Conference on the Immunology of Renal Disease sponsored by National Institutes of Health. Oct 1978

Invited speaker: University of Colorado Post-graduate Course on Kidney Disease and Renal Failure, Membranoproliferative Glomerulonephritis and Nephrotic Syndrome in Childhood, Aspen, CO. July 1979

Invited speaker: 23rd Annual Scientific Assembly of the Ohio Academy of Family Physicians, Pediatric Hematuria, Cincinnati. Aug 1979

Chairman: Subspecialty Session on Immunology, meeting of the American Pediatric Society, Atlanta. May 1979

Invited speaker: 18th Annual Kidney Disease Symposium, Kidney Foundation of Michigan, Membranoproliferative Glomerulonephritis, Kalamazoo. June 1979

Speaker: Annual Pediatric Post-graduate Symposium, Baylor College of Medicine, Asymptomatic Hematuria and Proteinuria and Complement Abnormalities in Disease, Houston, TX. Feb 1980

Grand Rounds Speaker: Department of Pediatrics, Medical College of Virginia, The Chronic Glomerulonephritides of Childhood, Richmond. Sept 1980

Organizer of Symposium on Glomerulopathies in Children, VIIIth International Congress of Nephrology, Athens, Greece. June 1981

Grand Rounds speaker: Department of Medicine, Youngstown Hospital Association, Chronic Glomerulonephritides and Asymptomatic Hematuria, Youngstown, OH. Nov 1981

Invited speaker: Research Seminar, Department of Pediatrics, University of Minnesota Medical School, Inherited Defects of the Complement System and Glomerulonephritis, Minneapolis. Jan 1982

Grand Rounds speaker: Children's Medical Center, Hematuria, Proteinuria and Nephritis, Dayton. Mar 1982

Invited speaker: Research Seminar, Department of Internal Medicine, Wayne State University School of Medicine. Acquired and Inherited Abnormalities of the Complement System, Detroit. April 1982

Grand Rounds speaker: Department of Internal Medicine, Wayne State University School of Medicine, Hematuria, Proteinuria and Glomerulonephritis, Detroit. April 1982

Invited Speaker: Fourth Annual Conference on Pediatric Disease: Genitourinary Tract, Approaches to the Diagnosis of Asymptomatic Hematuria and Proteinuria and Acute Renal Failure, Aspen, CO. Aug 1982

Mary Jane Keller Lecturer: Department of Pediatrics, Inherited Complement Defects, Yale University. May 1984

Grand Rounds speaker: St. Raphael and Bridgeport Hospitals, Bridgeport, Connecticut. May 1984

Invited panelist: Workshop on Randomized Trials in Renal Disease—Are They Worthwhile? International Congress of Nephrology, Los Angeles. June 1984

Invited participant: Fifth Annual Rogison Kidney Center Symposium, Cornell University Medical Center, Complement Activation in Renal Disease, New York. 1984

Grand Rounds speaker: LeBonheur Children's Hospital, University of Tennessee, Memphis. Jan 1985

Invited speaker: Nephrology Forum sponsored by Kidney International and Department of Medicine, Michael Reese Medical Center, The Natural history of Membranoproliferative Glomerulonephritis: Modification by an Alternate Day Prednisone Regimen, Chicago. May 1985

Invited Plenary Session speaker: Annual Scientific Meeting of the National Kidney Foundation. Membranoproliferative Glomerulonephritis, New Orleans. Dec 1985

Consultant: Children's Hospital of Philadelphia concerning establishment of a pediatric dialysis unit. April 1986

Grand Rounds speaker: Children's Hospital of Buffalo (on occasion of Mitchell Rubin Award presentation). April 1986

Invited Plenary Session speaker: Seventh International Congress of Pediatric Nephrology, Immunology in Pediatric Disease, Tokyo, Japan. Sept 1986

Combined University of Cincinnati-Children Hospital Medical Center Pathology-Nephrology Conference, Membranoproliferative Glomerulonephritis, Cincinnati, OH. Sept 1993

Morita Lecture, William Beaumont Hospital, Birmingham, MI. September 19, 1995

Site visits—National Institutes of Health:

1965-Member: Committee concerned with the establishment of Clinical Research Center, University of Missouri, Fulton. July

1965-Chairman: Committee concerned with the establishment of Clinical Research Center, Department of Pediatrics, Southwestern Medical School, Dallas. Aug

1965-Chairman: Committee concerned with Clinical Research Center application by the University of Minnesota. Dec

1965-Member: Committee concerned with establishing Clinical Research Center at Texas Children's Hospital, Baylor University. Dec

1966-Member: Committee concerned with an application for Clinical Research Center, Department of Surgery, University of Oregon. March

1966-Chairman: Committee concerned with application for Clinical Research Center, Department of Pediatrics, University of Washington School of Medicine. March

1966-Member: Committee concerned with establishment of Ambulatory Clinical Research Center, Duke University Medical Center. April

1966-Chairman: Committee concerned with application for Clinical Research Center, Department of Pediatrics, University of Minnesota. September

1966-Chairman: Committee concerned with Clinical Research Center, Medical College, University of Georgia, Augusta. September

1966-Chairman: Committee concerned with Clinical Research Center, Emory University, Atlanta. Oct

1966-Member: Committee concerned with Clinical Research Center, University of Pittsburgh. Nov

1966-Chairman: Committee concerned with application for a Clinical Research Center at the University of Utah. Dec

1966-Member: Committee concerned with application for a Program-Project Grant, Channing Laboratory, Harvard Medical School. Dec

1967-Chairman: Committee concerned with Clinical Research Center at the University of Colorado, Denver. March

1967-Chairman: Committee concerned with application for Clinical Research Center, University of California, San Francisco. March

1967-Chairman: Committee concerned with Clinical Research Center, Medical College of Virginia, Richmond. June

1967-Chairman: Committee concerned with Clinical Research Center, University of the State of New York, Upstate Medical Branch, Syracuse. July

1968-Chairman: Committee concerned with application for a Clinical Research Center, Children's Hospital Michigan, Detroit. September

1967-Member: Committee concerned with Clinical Research Center at Research and Educational Hospital, University of Illinois School of Medicine, Chicago. September

1967-Chairman: Committee concerned with Clinical Research Center at Los Angeles Children's Hospital, Los Angeles. Dec

1968-Chairman: Committee concerned with Clinical Research Center for premature infants, Stanford University Medical Center, Palo Alto. Jan

1968-Member: Committee concerned with Clinical Research Center at University of Hawaii, Honolulu. April

1968-Chairman: Committee concerned with Clinical Research Center at Rainbow Babies and Children's Hospital, Western Reserve University, Cleveland. April

1968-Chairman: Committee concerned with application for a Clinical Research Center, Children's Hospital of Michigan, Detroit. September

1968-Chairman: Committee concerned with application for a Clinical Research Center at Boston City Hospital, Tufts University School of Medicine, Boston. September

1968-Chairman: Committee concerned with application for a Clinical Research Center at Children's Memorial Hospital, Chicago. Nov

1968-Chairman: Committee concerned with establishing a Clinical Research Center at Wyler Children's Hospital, University of Chicago. Nov 1968

1968-Chairman: Committee concerned with application for a Clinical Research Center at Children's Hospital, Boston. Dec

1968-Chairman: Committee concerned with Clinical Research Center, Yale University School of Medicine. Dec

1969-Member: Committee concerned with Clinical Research Center at UCLA Health Center, Los Angeles. March

1970-Member: Committee concerned with Clinical Research Center at the University of Arkansas School of Medicine, Little Rock. March

1970-Member: Committee concerned with Clinical Research Center at Children's Hospital of Philadelphia. Jan

1970-Member: Committee concerned with establishment of Clinical Research Center at Upstate Medical Center, State University of New York, Syracuse. March

1970-Member: Committee concerned with Clinical Research Center, Children's Hospital, Buffalo, New York. Dec

1970-Member: Committee concerned with Clinical Research Center at Children's Hospital of Michigan, Detroit. Jan

1972-Member: Committee concerned with Clinical Research Center at Children's Memorial Hospital, Chicago. March

1972-Member: Committee concerned with Clinical Research Center at Boston University. Sept

1972-Member: Committee concerned with Clinical Research Center at University of Rochester. Sept

1972-Member: Committee concerned with Clinical Research Center at University of Oklahoma, Oklahoma City. Dec

1973-Member: Committee concerned with Clinical Research Center at College of Physicians and Surgeons, Columbia University. Jan

1974-Member: Committee concerned with application for Program Project Grant, Children's Hospital, Boston, MA. Apr

1977-Member: Committee concerned with Program Project Grant at Albert Einstein University College of Medicine, Bronx, NY. July

1977-Member: Committee concerned with Project Grant application, International Study of Kidney Disease in Children, Bronx, NY. Oct

1978- Member: Committee concerned with application for a Program Project Grant, Cardiovascular Institute, University of Minnesota School of Medicine. Jan

1979-Member: Committee concerned with Program Project Grant application, Department of Pediatrics, Harvard, Boston, MA. Oct

1979-Member: Special Study Section concerned with Project Grant application, Department of Pediatrics, University of Oregon Health Sciences Center, Portland, OR. Dec

1981-Member: Committee concerned with Program Project Grant application, Department of Pediatrics, Albert Einstein University College of Medicine, Bronx, NY. Nov

1986-Member: Committee concerned with Program Project Grant application, Division of Nephrology, Department of Medicine, Ohio State University School of Medicine, Columbus. May

BIBLIOGRAPHY

Clark D. West, MD

1. **West, C.D.**, Wilson, J.L. and Eyles, R.: Blood amino nitrogen levels. Changes in blood amino nitrogen levels following ingestion of proteins and of a protein hydrolysate in infants with normal and with deficient pancreatic function. *Am. J. Dis. Child.* 72:251-273, 1946.
2. Rapoport, S., Brodsky, W.A., **West, C.D.** and Mackler, B.: Urinary flow, excretion of solutes, and osmotic work during diuresis of solute loading in hydropenia in man. *Science* 108:630-632, 1948.
3. **West, C.D.** and Rapoport, S.: Method for determination of sucrose and sorbose in blood and urine. *Proc. Soc. Exper. Biol. & Med.* 70:140, 1949.
4. **West, C.D.** and Rapoport, S.: Modification of colorimetric method for determination of mannitol and sorbitol in plasma and urine. *Proc. Soc. Exper. Biol. & Med.* 70:141-142, 1949.
5. Rapoport, S., Brodsky, W.A., **West, C.D.** and Mackler, B.: Urinary flow and excretion of solutes during osmotic diuresis in hydropenic man. *Am. J. Physiol.* 156:433-442, 1949.
6. Rapoport, S., Brodsky, W.A., and **West, C.D.**: Excretion of solutes and osmotic work of the "resting" kidney in hydropenic man. *Am. J. Physiol.* 157:357-362, 1949.
7. Rapoport, S., **West, C.D.** and Brodsky, W.A.: Excretion of solutes and osmotic work during osmotic diuresis of hydropenic man. The ideal and the proximal distal tubular work; the biological maximum of work. *Am. J. Physiol.* 157:363-386, 1949.
8. **West, C.D.** and Rapoport, S.: Urinary excretion of phosphate following the injection of sodium p-aminohippurate. *Proc. Soc. Exper. Biol. & Med.* 71:322-326, 1949.
9. Brodsky, W.A., Rapoport, S. and **West, C.D.**: Mechanism of glycosuric diuresis in diabetic man. *J. Clin. Invest.* 29:1021-1032, 1950.
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