

Alvin F. Weber, DVM, Ph.D.
Narrator

Dominique A. Tobbell, Ph.D.
Interviewer

**ACADEMIC HEALTH CENTER
ORAL HISTORY PROJECT**

UNIVERSITY OF MINNESOTA

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In 1970, the University of Minnesota's previously autonomous College of Pharmacy and School of Dentistry were reorganized, together with the Schools of Nursing, Medicine, and Public Health, and the University Hospitals, into a centrally organized and administered Academic Health Center (AHC). The university's College of Veterinary Medicine was also closely aligned with the AHC at this time, becoming formally incorporated into the AHC in 1985.

The development of the AHC made possible the coordination and integration of the education and training of the health care professions and was part of a national trend which saw academic health centers emerge as the dominant institution in American health care in the last third of the 20th century. AHCs became not only the primary sites of health care education, but also critical sites of health sciences research and health care delivery.

The University of Minnesota's Academic Health Center Oral History Project preserves the personal stories of key individuals who were involved with the formation of the university's Academic Health Center, served in leadership roles, or have specific insights into the institution's history. By bringing together a representative group of figures in the history of the University of Minnesota's AHC, this project provides compelling documentation of recent developments in the history of American health care education, practice, and policy.

Biographical Sketch

Alvin F. Weber was born in 1918 on a farm near Hartford, Wisconsin. After growing up caring for the family farm animals, he graduated from the University of Wisconsin in pre-veterinary studies in 1941. He received his veterinary degree from Iowa State University in 1944. After practicing for a while and becoming frustrated with the limited scientific means with which to treat animals, he began his graduate studies at the University of Wisconsin, where he received a M.S. in 1946 and a Doctorate in Veterinary Medicine in 1949. As a member of the faculty at the University of Minnesota since 1949, Dr. Weber has been involved in the development of the College of Veterinary Medicine almost since its foundation in 1947. He was the head of the department of Veterinary Anatomy between 1965 and 1973. He did research on cattle leukemia on two international NIH fellowships in 1959-60 and 1971-72 and was on the International Anatomical Nomenclature Committee. Dr. Weber's research has focused on cytology, ultrasound and cytogenetics in relation to reproductive and hematopoietic systems.

Interview Abstract

Alvin F. Weber begins by discussing the influence of his rural upbringing on his decision to pursue veterinary medicine through college, at the University of Wisconsin, veterinary school, at the University of Iowa, and graduate studies, again at the University of Wisconsin. He discusses his close brush with military service and his move to the University of Minnesota in 1949. He comments on the impact of the electron microscope and his work on the International Nomenclature Committee. He then recounts his international research during sabbaticals working on cattle leukemia. He discusses his relationships with other faculty members like William Boyd, Bill Thorp, and Sid Ewing. He talks about the 1985 affiliation of the College with the AHC and about running the diagnostics facility at the University of Minnesota. He describes building, both structurally and programmatically, the Veterinary College, funding struggles, increasing numbers of female students over the years, technological and medical advances, and the development of small animal medicine. He also recounts his chromosomal research in cattle.

Interview with Doctor Alvin F. Weber

Interviewed by Dominique Tobbell, Oral Historian

**Interviewed for the Academic Health Center, University of Minnesota
Oral History Project**

**Interviewed at the Home of Doctor Weber
1666 Coffman Street, Apt. 333, Falcon Heights, Minnesota**

Interviewed on October 6, 2011

Alvin Weber -AW

Hazel Thorson Stoick Stoeckeler -HS

Dominique Tobbell -DT

DT: This is Dominique Tobbell. I'm here with Doctor Alvin Weber. It is October 6, 2011. We're at Doctor Weber's home at 1666 Coffman Avenue Street [Falcon Heights, Minnesota].

Thank you, Doctor Weber.

To get us started, can you tell me a bit about where you were born and raised?

AW: I was born on a farm four miles from Hartford, Wisconsin, which is located about forty-five miles northwest of Milwaukee, sort of in the South middle area. Do you know what a Kettle Moraine is?

DT: No, I don't.

AW: When the ice flow came down way, way back when, it came down and picked up dirt as it went along. This dirt, then, was carried on top of the ice and when it got finally to the point where there was no more ice, then all of the dirt that it had accumulated was left there. Of course, it left hunks of dirt, so you see the little lakes and ponds all over, and that was called the Kettle Moraine, the little kettles of water. Our farm was right at the very edge of that, so we had fairly smooth land. But just about two miles to the south, it was just all up and down, so much so that there was a Catholic Church on Holy Hill near Milwaukee, which is on one of those remnants.

On our farm we raised dairy cattle, and hogs, and chickens. We milked cows by hand. That was mostly it, yes. I was raised that way. I had to get up early in the morning, milk three or four cows,

and then go to school. The first four years, I went to a school in the country. The next years I went to grade and high school in Hartford, four miles from home. Then, after that, I decided that I wanted to be a veterinarian because we had cattle diseases and one thing and another. So I went to [the University of] Wisconsin for pre-veterinary studies where I received the BA degree with a major in zoology. After that I was admitted to the Iowa State University College of Veterinary Medicine at Ames, Iowa in the spring of 1941, where I received the Doctor of Veterinary Medicine (DVM) degree in the fall of 1944. But an unforeseen thing happened before I graduated from veterinary college. My army draft number (17170265) to go into the Army came up in the summer before I was to enter veterinary college. Since I already had been accepted into the veterinary school I went to the local Draft Board and pleaded my case. I said, "You know, I'm a farm kid and want to become a veterinarian. Until things get real bad, I would like to be deferred so I could start in getting on with my career." After some backroom discussion they said, "We'll call you in the morning." So I went home, and didn't sleep all night. The next morning, they called and said, "Okay, we'll put you on a reserve list until..." So I got into veterinary school, and while in my freshmen year the bombing in Pearl Harbor on December 7, 1941 occurred. We were immediately removed from the veterinary college, put in army uniform, and taken down to Des Moines, Iowa, where we went through basic training. At the end we didn't know where we were going to go. We all were ready to go to Germany someplace else when all of a sudden they started the American Student Training Program (ASTP). They took us immediately back from Des Moines to the veterinary college in our uniforms and said, "Go and study and get your degree. When you get out, we'll probably assign you to someplace in South East Asia in the military as veterinary inspection people." When I got my DVM degree in the fall of 1944 the Army Veterinary Corps was filled up. So they told us to leave the military, go out into practice, and await the possibility of being recalled.

My experience in practice was discouraging. I became sick and tired of trying to treat animals when at that time we didn't have specific medicaments such as antibiotics or sulfa drugs. So I went to the University of Wisconsin and was accepted into the Department of Veterinary Science graduate program. There I not only did graduate work, but also did practice work taking care of the University farm animals. In my graduate work I did a lot of experimental work with antibiotics that I found available from the Army Medical Corps. I got my Ph.D. degree in 1949 with a major in Veterinary Pathology. About this time, as I was considering other opportunities, Dr. Ralph Kitchell, a staff member on a recruiting mission from the University of Minnesota invited me to consider a position in their newly founded College of Veterinary Medicine. Of course, I wanted to do something in teaching and research, and now had the mandatory DVM/Ph.D. credentials. So I said, "I'll come up and take a look." I came up here and Doctor Willard Boyd, Dean of the College, interviewed me. He said, "I'd like to have you become Assistant Professor in pre-clinical medicine studies, which I did. So as a result I put in about fifty years here doing teaching, experimental research and diagnostic work.

DT: Oh, I have it here. Yes, you published lots. [chuckles]

AW: Yes. I was doing research, some of which entailed traveling. One thing that happened which I think you might be interested in. About that time, the electron microscope was discovered, and we were able now to observe body tissues that we never could before. What used to be a little mitochondrion about the size of a dot could be magnified thousands of times and seen in great detail. That important structure and many other parts of the body had to have names. So, you see,

that mitochondrion now had parts like “cristae mitochondriales” and many others. Discussions about what do you call this structure and many others became an immediate necessity. I was, called on to be a part of the International Nomenclature Committee. So in addition to all my teaching and research, I would have to take off periods here...

[Doctor Weber is looking through his curriculum vitae] Here it is program chair of the World Association of Veterinary Histologists ... so anyway, here it is, an International Histological Nomenclature publication. You can read my C.V. for all that stuff.

DT: Yes.

AW: In addition to that, my veterinary animal disease research was so funded that I could go and collect samples for my study of leukemia in cattle in various parts of the world. I bled cattle all the way from Greece way through Germany, Denmark, England, Ireland, and also Japan. So you see, I was teaching, working on nomenclature, doing research with much traveling... and driving myself crazy.

[chuckles]

AW: I did put in all this time doing these things to the point that I needed a respite to “recharge my battery.” For this reason I took off time for two year sabbaticals in Europe for research alone. Every seven years, we could take off and have a sabbatical if we could get it funded. We'd have half university salary and the rest funded by the United States Public Health Service-National Institutes of Health. The first one, at the Veterinary Institute in Giessen, Germany, I was looking at some very interesting stuff that had to do with problems in gastritis in dogs and cats. Using the world's first electron microscope, I found some spirillae in mice that I transferred from dogs to mice. They get into the parietal cells in the stomach and destroy them, causing gastritis. I published the results of my findings. In regard to my research on spirillae, about twenty years ago some lady in Germany continued the work I was doing and found out that in humans, it was the cause of stomach problems, and she got a Nobel Prize for it.

DT: Goodness. Wow!

AW: [laughter] That's okay, because I wouldn't have done it anyway. I came kind of close maybe. That's just one of those things, you know.

When I came home, I got interested in leukemia in cattle, which led to my second sabbatical at the University of Bern, Switzerland Medical School doing research related to leukemia in humans and cattle. There again, there was a lot of traveling to pick up samples all over the place.

After finishing my research studies on leukemia I was asked by our Veterinary Diagnostic Laboratory to work with Doctor Marie Gramer, a specialist in swine diseases, in providing diagnostic information from the literature and biopsy tissue samples which veterinary pathologists use in diagnosing tissue samples of testicular biopsy samples. Presently we are working on a publication relative to a study of the literature and the samples. That brings me right up to current relative to my veterinary career.

DT: [chuckles] That was an incredible survey of your long career.

AW: In the process, you see, we had to build the Veterinary College.

DT: Yes.

AW: When I came here, we had no physical facilities other than a little round room about thirty feet in diameter for our large animal clinic, and a two story 100 foot square small animal clinic, a library, and teaching and office space.

DT: Goodness.

AW: Just imagine how we started. Two weeks ago, they tore it down. I cried when I saw it going. That's where we started.

While I was teaching, we also had building committees, because we had to get buildings built. So I was a part of that. For one year, I had to do that for one of the big buildings under construction. Teaching, doing research, and, checking the people who were constructing the building was quite enervating!

DT: It sounds like more than a full job.

AW: They are now, I guess, just about complete. There were about four or five phases of building. Each time there was a phase, there was always some disruption, and people had to work overtime on the building committees.

DT: Let me follow up on a few points. I'm curious. You mentioned that when you first got your degree and you started treating animals, there weren't antibiotics or sulfa drugs. So what could you do to treat the animals?

AW: I can remember there were medicaments they called gentian, ginger, and nux vomica. I never used them. There were non-specific remedies. One could make a poultice or something like that and put it on an animal's foot. It was terrible. I remember when we had cows that wouldn't get pregnant. We'd go right into the rectum, find the ovaries, take our thumb and crush the large follicles that contained the egg to bring them into heat. Just imagine what this would do to the rectal wall! The cows would be injured and bleed sometimes. That was terrible. Of course, we eventually used gloves. Here we were doing this kind of practice. It was very hard, very hard. That's why I just said, "I can't take this any more." Being a farm kid, I knew all about animals, so I went into graduate studies.

DT: Penicillin was available for humans right after World War II, but I guess, it took some time for them to make it available to animals.

AW: Yes. They had some impure Terramycin that I got a hold of and I used impure Terramycin to treat cows for mastitis. Mastitis was when the udder would swell up. There was nothing we could

do. At first, in treating them, we did it in a peculiar way. We would take a dilution of Terramycin, and we would take about 1,000 cc [cubic centimeter] or more, and we would infuse it up the teat of the cow. Can you imagine? That's the way we did it. Can you imagine that? Gad. Ohhh geeze. So I saw some of the cruelest vet medicine before we really developed modern medications. We didn't crush the ovaries anymore to bring a cow into heat.

DT: When do you think that changed?

AW: That changed maybe 1946 or so. Yes... yes... maybe a little later.

At any rate, when I came up to Minnesota here, they were just beginning to do things the modern way. Once we got together as a veterinary faculty, then we started looking at better ways to do things.

DT: When you first started at Minnesota, the School of Veterinary Medicine had just been established in 1947 and it was part of the Institute of Agriculture. Is that right?

AW: Yes, it was. There was a little diagnostic laboratory nearby, so I don't even know if it was called Vet Science. There was nothing much more than this state diagnostic laboratory. I suppose it might have been a part of Animal Science. I remember a lot of people from Animal Science I worked with at first on things that related to my research interest. So I would say Animal Science people, yes.

DT: Did the diagnostic lab see most of the animals that needed to be studied within the state?

AW: Yes, they were taking any animal that came in there.

DT: Do you know how the school was funded at that time? Was it mostly by the state?

AW: Yes. Oh, this was interesting. There were three soldiers in the Second World War who were primarily involved. Glen Nelson was one and Walter Mackey was another. The third one I forget. Ithel Schipper was an animal scientist who was involved. Glen Nelson really was the fellow who was the leader of that group. Glen Nelson was first in the South Pacific and, then, he went to North Africa, where he fought General Rommel. Glen had one heck of a background. He was determined he was going to get into veterinary school. He went as far as Colorado State, couldn't get in. Finally, he said, "Let's go to the [Minnesota] State Legislature and petition them." Here was a fellow—I can't remember—Hatch? [correctly, August "Augie" Mueller]. He was a legislator of farmer background. He said, "Now, wait a minute. This looks to me as though it's very valuable." He protested until the Legislature decided they would go to the President—I forget his name now [James L. Morrill]—and tell him there's got to be a veterinary school here. The President said, "Over my dead body." I don't know if he used those words, but that's what they told me.

DT: [chuckles]

AW: The Legislature said, “Yes, over your dead body.” So they started the Vet School right there. Nineteen forty-eight was the first class. I came in the fall of 1949. It was really a matter of these three veterans pushing to get it started.

DT: I'm sure it must have had the support of farmers.

AW: Oh, gosh, yes. Oh, yes. Just to show you... This is on the record, too. Sally Jorgensen—she was the head of our Anatomy Department for a while—and I went to a meeting where they were discussing the concentration of the kinds of teaching we did here to keep only those which were most vital. By god, during that meeting, they started talking about closing Vet Medicine and closing a couple of other places—I forget what they were now—and two history professors, as I recall, were the most energetic in trying to say, “Look, let's concentrate on really the curricula that are most important to the state.” They voted to close the Veterinary School.

Well, I came out of that meeting and immediately went to Bob [Robert] Dunlop, who was our dean, and I said, “This is what they have voted to do. I think we need to let the veterinarians in the state know what they're trying to do.” So he contacted a whole lot of people and, in about a week or so, they got the word back. [chuckles] “Don't you dare!” That would have been terrible. So, I saw that kind of thing going on, too.

DT: Yes.

AW: I should tell you that when the Veterinary School was first started, we had those facilities that I told you about. But right north of it was the University heating plant. So we had a heating plant right on our shoulders there. Right next to it was the meat lab. We used to go over to the meat lab and get tissue pieces of cows and pigs or whatever, and use them to cut up and make tissue slices so we could show the students. So the first seven years, it was just touch and go. We had to embalm animals and create all the tissues and everything for the students to be able to use to study. So it was a real son-of-a-gun. That's a long way of telling you something.

DT: As I understood it from the Archives, there was lots of difficulty getting enough funding for the school.

AW: Yes. I'll tell you, I was head of Anatomy for a while there, and we'd run out of money, so I would go to the dean and I'd say, “Look, we need to petition the University for more money, a thousand or a couple thousand dollars, to buy animals.” We would teach the kids, of course, gross anatomy, so we had to buy animals and one thing and another. So we'd always petition to get a little more money so we could carry on the teaching. It was kind of tough that way, too. Yes.

DT: Did the school get money from...? I thought the Minnesota Turkey Growers Association had given money at one point or another.

AW: Oh, that's right, Turkey Growers. I forget the guy's name now, a short little fellow. What the heck was he called? Ben [Benjamin] Pomeroy... You know Doctor Ben Pomeroy. You've heard that name?

DT: Yes, I have heard of him.

AW: Ben Pomeroy was really instrumental. Ben was Mister Turkey Minnesota.

[laughter]

AW: Of course now, the Pomeroy Building, you know is there.

DT: Yes.

AW: Ben did a whole of work in taking care of that.

We would get money from here, there, and the next place, of course.

DT: In 1957, I think, the College of Veterinary Medicine was established. It was moved outside of the Institute of Agriculture and actually set up as its own college. Do you remember that process?

AW: Nineteen fifty-seven? If it was, it was done in such a subtle way that we didn't worry about it. We just decided we were big enough. Doctor Willard Boyd, you know, and some of the others...1957? I'm trying to remember what would be happening in 1957. In 1959, 1960, I was on sabbatical. It wasn't very much of a thing.

In fact, the Animal Science Vet Med Building, that building, we petitioned to the University... We said, "We would like to have a place in this new building and call it Animal Science Vet Medicine, so the Animal Science people would agree to it." They thought they were going to take over most of us, you see, and we let them think that. Well, as soon as the building was built... [Laughter] I'm telling you, we filled that bugger up.

DT: [chuckles]

AW: You see, maybe we were sort of a part of Animal Science but we really weren't a part of Animal Science. That was interesting.

DT: What was Doctor Boyd like as a leader? He sounds like he did many important...

AW: Oh! He was a real fine guy, but he had some peculiarities about him...Willard Boyd. [chuckles] I remember a young fellow by the name of Doctor [David] Bemis I used to chum around with a lot. He was a small animal clinician. If somebody would accost Willard Boyd and talk to him about... He would say, "Fine. Fine. Fine." He was listening—but he wasn't listening—because he was always going someplace. Doctor Bemis said, "I'm just going to see what he might say if I said, 'My father died yesterday.'" So he said to Doctor Boyd, "My father died yesterday." Boyd says, "Fine. Fine. Fine," and walked out.

[laughter]

AW: But Willard was a very fine person. He could get money for us not only from the University of Minnesota but also from the Minnesota Ag Experiment Station.

DT: How many faculty do you think there were in those first few years you were here?

AW: Oh, god! If I said maybe fifteen, twenty, twenty-three... Some of the pictures I have... Yes.

DT: Boyd stepped down, retired, I think, in 1954. Then, W.T.S. Thorp...

AW: Bill Thorp came in, yes. Bill Thorp was the kind of a fellow who smoked a great big cigar and was a little fat. He was a good guy. He helped me an awful lot. Bill Thorp, which year did he come in?

DT: Nineteen fifty-four.

AW: In 1959, 1960, you see, I was on sabbatical. He knew I was going to be studying electron microscopy. He also knew that I would need a good light microscope, so when I came back, he saw to it that I got a very good light microscope and the first electron microscope in the whole United States for veterinary med. I had the first electron microscope placed in our college. So Bill Thorp was real good that way, yes. He died of esophageal cancer. He smoked too darn much.

DT: When Thorp took over—you already mentioned it—it seemed like there was a lot of expansion of the college.

AW: Oh, god, yes, I'm telling you. You see, all of a sudden, that round room and that other building just weren't enough. The first phase really was the clinic facilities. Then, we were still teaching in the old building there. The first thing after that they got the basic science building along Commonwealth [Avenue], which had a small clinic part. I was in charge that year of daily inspecting the process of that building. So there we could have our anatomy, and histology, and embryology classes. The clinic was started, a small clinic, you know. That's sort of a first phase. In 1982, we got the new Small Animal Clinic. The Animal Science Vet Med Building was a little before that. We suckered these guys into things that they were going to have most of it and we got it. So then, we got that building, you know. After that, then, we added a couple of stories to the building on Commonwealth there. Then, we got the 1982 thing to expand the Small Animal Clinic. So, you see, we were kind of bumped around all the time where we were teaching and whatnot.

I can remember teaching histology along Commonwealth Avenue when we had two floors. They had a little caterpillar tractor and they were taking off you know the kind of roof we had with that damn thing. We would hear it go, boom, boom, boom right across there and, by god, he knocked down a piece of concrete that went right down in between students in the histology laboratory.

DT: Goodness.

AW: Can you imagine that? There was a lot of stuff going on like that. At any rate, we got these next two floors. The top floor, which is now the library, and some other stuff, that was wide open in

January when we had a hell of a storm. Rain and snow and everything, and it wetted down a heck of a lot of stuff on the lower two floors, so people lost a lot of books and one thing and another.

DT: That's not good.

AW: Since 1982, we've been pretty much stable in terms of buildings, I guess.

DT: It seems like Thorp had a lot of difficulty getting money from the University administration.

AW: He did, yes. We had an indifferent president to deal with for a while. I forget his name now. [Malcolm Moos] It was tough. Bill Thorp really worked for us, you know.

DT: That was a time when there was concern nationwide about there being a shortage of veterinarians, as I understand it.

AW: Yes. Oh! and then they wanted to give us national funds [Veterinary Education Facilities funding] to increase over 100 students. I remember Bill Thorp and some department heads, we went to a meeting someplace, and we talked it over. We said, "Look, if we raise it from"—what was it—"50 or so up to 120"—or whatever it was—"and the national funds dry up we're going to be *stuck* with that money. We'd have to get it from someplace else." Texas A&M [University] went way up and maybe some others, too, but we just stayed right with the number we wanted.

Anything else you remember?

DT: Thorp stepped down in 1971 and it seemed like there were some tensions around his stepping down.

AW: Yes. Bill Thorp got divorced from his wife. She was a nurse. Then, he got a hold of this gal who was quite a rounder. She was a nice lady, but I'm telling you, she kind of led him around. He got into drinking a little too much and there was something that had to do with something in Chicago. Well, I can't say what it is, but, anyway, Bill Thorp kind of left under pressure, you know. I felt so sorry for him, because I knew he was a human being. Yes.

DT: And he'd obviously done a lot for the college while he was dean.

AW: He did a heck of a lot. He'd have to fight his way to get things. He was imposing enough, because he was about six [foot] two inches, big, you know. I have pictures of him, if you want to see him.

DT: Ohhh, that would be great. I'd love to see them after the interview. That would be great.

AW: [chuckles] Maybe you want to come back some other time.

DT: Yes, that's fine. To see them at some other time is fine.

AW: I'll get them out and you can see Bill Thorp. I'll show you pictures of the old building.

DT: That would be great. I'd love that.

AW: Sure. Well, listen, maybe in the next month or so. How long of a time do you have?

DT: Oh, I have as much time as you need. This is ongoing.

AW: I can get you pictures of that building as it was just before they knocked it down or while they were knocking it down. Then, I can show you pictures of staff and all that kind of thing.

DT: That would be great. I have some more questions for you if that's okay.

AW: Yes, yes.

DT: When Thorp stepped down, he was replaced by Sidney Ewing. Do you remember the process by which Sidney Ewing was appointed?

AW: Sid Ewing was next; yes, that's right. Sid Ewing was an unusual person. He was okay, but I think his wife really ran the school.

DT: [chuckles]

AW: He went down to Oklahoma, I think, after that. Sid Ewing was somebody who... Well, we got along. We got along, but I think his wife used to make decisions without knowing what the results would be.

Then, who came after that?

DT: That was Bob Dunlop.

AW: Oh, yes. Bob Dunlop was a heck of a nice Canadian. He did a lot of good work for us, too. On the other hand, his wife always wanted to move someplace near the ocean or whatever, so, then, they just took off after a while.

DT: Yes.

AW: He's the one who received the message that they were going to close the Vet School. He just went out and told all the veterinarians, and, by, god, he stopped it. Bob Dunlop was a very fine person in kind of a Canadian way.

DT: [chuckles] It would seem so ludicrous they should close the Veterinary School given that it was the only veterinary college in the state and it was training students from Wisconsin and both Dakotas as well.

AW: Oh, yes, because there was no vet school in the University of Wisconsin.

The University of Wisconsin Vet School got started in a funny way. The Frautschi funeral people had the only funeral home really meaning anything in Madison, you see. Their son went to Colorado State [University] and got his veterinary degree. Of course, I suppose he thought he was going to be a veterinarian, but they put him to work helping out with the funeral business. So he always wanted to do something in order to say, "I paid back my veterinary training and all that." So he kept on protesting to the state legislature that they should have a veterinary school at Madison or else up here. There's this college up north here; I forget where it is. They were going to have a vet school there, but, then, it was down there at Madison. I think that young Frautschi was the guy who finally got them to get a vet school down there.

The second dean down there was a former student of ours, Doctor Darryl Buss.

DT: I saw there'd been some discussion that Wisconsin would set up a vet school with Minnesota, that there would be a regional vet school.

AW: Well, I heard some of that, too, but really, Frautschi was trying to get a vet school. What the heck is the name of that little...?" Hazel, do you know the name of that University...?

HS: River Falls?

AW: River Falls, yes. There was going to be at River Falls, but that didn't pan out. So they started a vet school down there [in Madison]. I was happy to see that, because I'd done my Ph.D. down there and I had sympathy for them.

Yes, we used to take students from North and South Dakota and Wisconsin. Where else?

DT: I think it was when Ewing arrived and became dean in the early 1970s, he re-organized the College of Vet Med.

AW: Yes. We did do it. There was something funny about that which was more work than it was worth, something we didn't like. Now, what was it? He did something so unusual we didn't really know who we were for a while. I can't tell you what that was.

DT: As I understand it, he reduced the number of departments down to just two.

AW: Oh! that was it, yes, clinical and pre-clinical. That was it. It was so stupid. I thought it was four or maybe it was eight and four and two, something like that, but it didn't make any sense at all. [f you were an anatomist and your department head was someone who had clinical background and didn't know anything about it, how in the heck could you get the dean to really get some money from the University if you needed it? I don't want to call it a disaster, because he was a human being, but... [chuckles]

DT: Was that the feeling shared by your colleagues, too, that it just wasn't worthwhile?

AW: Oh, yes. It didn't last very long before we just said, "Now, look, forget about it." In fact, we started calling ourselves what we wanted to. We chose people who would be our acting heads. [chuckles]

Then, following that was Jeffrey Klausner. He went to New York after a while. He was a small animal guy.

Oh! then we had... Who was the next guy? A big, tall drink of water. He was not a people person. I think he by not doing much... He never could get into a group and start talking to people who were colleagues of his really. What the heck was his name?

DT: Was that [David] Thawley?

AW: Dean Thawley, yes. He was a big, tall drink of water. We tolerated him for a number of years. Then, he left and went to Colorado or someplace like that.

Then, we got, of course, the small animal guy. Oh, it's on the tip of my tongue. Trevor Ames, perhaps?

DT: Probably it will come back to you. I should know it, too, but I've forgotten.

Given that you were doing all this anatomy and using the electron microscope, did you have much collaboration with any of the anatomists on the other campus?

AW: Oh, yes. That was Doctor [Frank] Hartman over there in the Medical School and Doctor Magnus Olson, an outstanding histologist. Frank Hartman and I decided that we would try to make a tool with which we could make glass knives, which we could cut plastic sections for electron microscopy. You see, when electron microscopy came in, we imbedded all of our tissues in plastic. That plastic, you couldn't cut it with the ordinary knives that we used to cut paraffin sections. So we had to find something to substitute. What we did first of all was to decide that if we broke glass, the edge of glass must be good enough to really cut those sections. At first, we used to just take and make a square of glass and, then, we'd take two pliers and we would pull them apart. See?

That was our way in which we produced glass knives. Then, we decided, well, we need to have some kind of a mechanical gadget, so we devised a little platform like this where the thing came across and just by general pressure, we could cause the glass to break. So Frank Hartman was quite helpful. I used to have Frank come over here and we'd do a number of things together.

Oh, what was his name...the histologist? Magnus Olson. You remember him, Hazel, don't you? He was the histology professor, so we'd go over there and talk to him about things.

When I came to Minnesota, I had been at Wisconsin doing Ph.D. work, and some of my work required me to prepare tissues for pathology and what not. Down there, we had a person who was really good at putting together different stains. We would have a stain that would show up tissues in different colors. So when I came up to Minnesota, we were just beginning to prepare our own tissues and they were using hematoxylin and eosin stains. I used to say, "That's like old barn paint."

H & N, we called it. So I introduced using stains that had more colors. After a while, when they looked at my tissue, they used to call me “Triple Stain Weber.”

[laughter]

AW: I said, “Look, you don't see much when you use barn paint. You've got to use something that colors different tissues.”

You know, that reminds me... Ken [Kenneth H.] Johnson was one of my students. He was looking at some pancreatic islets of Langerhans, which have to do with producing insulin you know that controls blood sugar levels.

DT: Yes.

AW: He said, “Doctor Weber, these islets just don't look like the textbook says.” I said, “I know. I had to get this tissue from postmortem, so it probably was partly decomposed before we could use it. Ken, you just look at the book and, then, you look and see if you can dream that this is what it should be.” You know, he was very interested in islets of Langerhans. He was a small animal guy. He wanted to be a small animal practitioner. So when he got out of school, Ken Johnson, he remembered about insulin and diabetes, so he got working summers for, oh, I don't know, ten, fifteen years with a Swedish guy. They came up with a material that could be used to treat Type 2 diabetes. The company that resulted out of that was called Amylin. At any rate, Ken Johnson was really responsible for the first really good Type 2 diabetes treatment. After a while, they found that a couple of people maybe had some cardiac problems, so I don't know right now where it is. I used to have some money in it. I decided I wouldn't do it anymore. But Ken Johnson was responsible for that.

Another person... Hazel, is Vic Perman's picture around the corner? I'll go get it.

Another one of my students who went on to fame, Doctor Victor Perman. When I was teaching histology, I always had these triple stain slices that were kind of pretty. When he was studying histology, we were looking at blood cells.

Have you got it?

HS: Yes.

[Professor Tobbell looks at the photo of Victor Perman]

DT: Thank you.

AW: He just couldn't keep his mind off from slides of peripheral blood or bone marrow.

[extraneous conversation]

AW: That's Doctor Victor Perman. He got to looking at these peripheral blood and bone marrow cells, and he just couldn't get his noodle off those blood cells. One of my colleagues was doing

some blood work in the Medical School, he said, “We really need some student here who could prepare some samples and get them ready for us to send over to the other side and what not.” I said, “Look, this guy can't get his eyes off these blood cells. Why don't you hire him?” So they hired this farm boy Doctor Victor Perman and he never got back to Greenwood, Wisconsin, to practice. He was a large animal medicine guy. He kept right on, did his work on a Ph.D. He's internationally known as hematologist. He recently had a stroke. [Doctor Perman passed away on December 11, 2011. He died of a severe systemic bacterial infection.]

So those were two fellows especially who seemed to benefit from the Weber Triple Stain.

DT: Ken Johnson's work for treating Type 2 diabetes, that was for humans as well as for animals?

AW: Yes, for humans. He was working with a Swedish M.D., you know. They just came up with this treatment, yes.

DT: That's incredible. So there's lots of collaboration between veterinary medicine and human medicine.

AW: Oh, yes. Amylin was the compound that came on the market. A-m-y-l-i-n. If you look in the financial section, you'll see Amylin. It was as high as fifty [dollars per share] and it went way down to twelve [dollars per share]. I don't know where it is right now. It was really a hot one way back when. Yes.

DT: The small animal medicine ... you had begun as a large medicine person.

AW: Though I'm a cow person, my teaching covers all species.

DT: Yes. It seemed like within veterinary medicine, at least in the early years, most animals were large. There weren't maybe so many pets.

AW: Yes.

DT: How did the arrival of pets, family pets, change things in veterinary medicine?

AW: Well, it's hard to say. It seems to me that United States-wide, people got the impression that having an animal in the house is quite helpful to the way kids deal with each other and a needed companion for people living alone.

I want to mention something about that... Who was this other person? Hazel.

HS: Is it all right for me to...

DT: Absolutely.

HS: One of the things there you might mention is there have been more women students. Hasn't that been related to more of the small animal practice opportunities?

AW: That's for sure, yes.

On top of that Bob [Robert K] Anderson, who came here from Colorado is the person who invented the “Gentle Leader” dog head collar that can make a dog more docile without resorting to choking methods.

DT: Yes.

AW: So there were many things that happened around here that encouraged the development of the small animal clinic. Just in general, I think that as time went on, for some reason, the presence of a dog or a cat was kind of a part of having a decent family living. In fact, right now, the neighbor lady next door has a cat and other people have a dog if they're on first floor. Those animals, then, are a part of life more than they used to be way back when.

DT: You mentioned R.K. Anderson, who I have met a couple of times now. He seemed to be a really important figure in making companion animals prominent here.

AW: Yes, he did.

DT: I'm interested in Hazel's point about the role of increasing numbers of women veterinarians.

AW: Well, here's the thing. It happened that the size of farms kept going up because they got what they called these dairy milking parlors. The farm kids apparently found it more difficult to be in vet medicine because of the way dairy milking parlor owners relate to individual animal medical problems. Then, too, another thing, I think is that the women were always better students in high school and in pre-vet medicine, so their grade points were higher. So, now, two-thirds or more of our students are women. There's another factor; it was found out if a person brings a dog in or a cat in that, for some reason, if the clinician is a female, the animal has a closer feeling between the female practitioner and itself..

DT: Hmmm.

AW: ...that women have some kind of a bearing that when the animal sees this person with the white coat on, just because it's a woman... Maybe it's her voice. Who knows? Maybe a lower voice, you see... [Doctor Weber lowers his voice] I don't know. It's true, then, that women have an advantage in small animal medicine that way. God made it that way.

DT: [chuckles] Are there studies showing that dogs respond better to female vets?

AW: I don't know if there is anything written on it, but it is stated often, you know. Yes.

DT: That's great. At the vet clinic that I take my animals to, they're all female vets. There's not a single male vet.

AW: Is that right?

DT: Yes, and they were all trained here [at the University of Minnesota]. [chuckles]

In 1985, the College of Veterinary Medicine became formally affiliated with the Academic Health Center.

AW: Yes.

DT: Do you remember any of the discussions that led to that?

AW: Hmm... No, I don't. It was so insidious, but I just think it kind of helped. It just happened. We had togetherness, you know. People... well, take Bob Anderson, who was there, and what was his field?

DT: Public health.

AW: Public health, yes. We used to do things back and forth more and more like that. They recognized that we were a valid part of medicine. [chuckles] Yes.

DT: It seemed like the faculty in Vet Med were trying to get the college affiliated or part of the Academic Health Center since the early 1970s. But, first, Dean Ewing didn't want it, and, then, President Magrath also didn't want it.

AW: Oh, you know Magrath did a lot of disservice. Yes. He was a funny guy.

DT: Did you have any encounters with the vice presidents for health sciences, Lyle French, and then Neal Vanselow?

AW: Uhhh... Who was the other one?

DT: Neal Vanselow.

AW: Oh, Vanselow. Yes, I can't remember exactly what it was. [chuckles] I'll have to think about that one.

DT: As far as you can remember, it didn't really change things for the college that it became part of the health sciences?

AW: No, I don't think so. I don't think so. We were strong enough to handle our own...

Then, of course, the Minnesota Veterinary Medical Association [MVMA] became quite a thing. They started being spokesmen for us, too.

DT: How did that come about?

AW: Just gradually, you know. AVMA is the American [Veterinary Medical Association]. They just decided we should have that, because things would come up where they could influence us. Maybe sometime, you'll want to call up the president of the MVMA and ask him about the history. I had so much on my plate that some of these things went right past me.

DT: [Laughter] I know. It sounds like you were juggling a lot, teaching, research, and, then, the nomenclature things you were talking about earlier.

AW: I'm telling you, it was really something else. In order that I could handle the carrying of materials needed during travel in my study of leukemia in cattle I needed my son's hockey bag. You know how big they are.

DT: Yes.

AW: I used to fill that hockey bag full of preservative fluids so that when I went someplace, as far as Greece or wherever, I'd carry that dang bag with me plum full of this stuff. I had blood tubes, syringes, cleansing facilities and everything so I could bleed animals and process samples. I would bring that whole damn thing back and I would process it, or have my technician process it. I was so preoccupied with keeping the research thing going, that, many times, things like making return travel arrangements just went right by me.

DT: It seems like in Vet Med the faculty was getting a lot of recognition from federal funding agencies.

AW: Oh, yes. That's right.

DT: It sounds like your research would have been well funded by the National Institutes of Health

AW: Yes, mine was funded by the National Institutes of Health for I don't now how many years.

I also ran the cytogenetic diagnostic facility in our Veterinary Diagnostic Laboratory for thirty-five years. It consisted of the microscopic diagnosis of abnormal chromosomal conditions especially in young bulls, boars, rams, and male dogs, and cats that were scheduled for breeding purposes. It had to do, then, with looking at chromosomes, which were faulty to avoid transmission of the problem to females. Our reports had to be confidential for obvious reasons. Just to tell you one astonishing thing that came about. There was a bull, named Papillion, a French bull, down in Texas. This bull was of the—I'll think of it in a bit—breed. He was so good that they used his semen for artificial insemination to breed most every cow of his type in the whole nation, especially in Texas. One of my friends in Penn [Pennsylvania] State [University] found out that he had a chromosomal problem. Well, he couldn't be used anymore, so he went to slaughter, I got to thinking, I wonder how many cows had calves which are being compromised because they have some of that stuff in them. By golly, we made a study of all the cattle in that breed and we found that thirty percent plus were positive.

DT: Goodness.

AW: Can you imagine that? It was spread insidiously.

Here's something that may be hard for you to understand. When the bull has a chromosomal problem when sperm is being formed, four out of the six sperm in a group of six will have this condition that the sperm will never develop. They just die. One will live, but it will have the condition and the sixth one will be free of the condition. So whenever a cow receives sperm from a bull that is of this kind, she can fifty percent of the time get either a good one or a carrier. If that carrier then results in some offspring from this cow, those calves when they become adult are not able to get of the bad eggs. So one of the first papers that came out after [Hans] Gustavsson in Sweden found out about this condition in Swedish red and white cattle—Gustavsson, about 1964—was entitled “Culling of Heifers of Positive Cows.” Now, we know that whenever there's a bull or, for that matter, even a human being... In human beings, they differentiate human sperm until they find one that's normal and, then, the female is inseminated with that one. So, you see, they can avoid it, but you can't do that with cattle and pigs and so on. We were trying then to continually test the animal that was going to be used.

Just to give you an example of how people loved you and hated you... We were doing this testing and there was a bull calf sold in South Dakota. After it was sold, the guy said, “Look, before I pay you fully, I would like to have this young bull calf tested.” It turned out the bull calf was positive. So, then, the guy said, “I don't want to buy it.” The guy who was selling it, of course, couldn't sell it. His wife got mad at us because we found it positive. She called us and said, “You just caused my husband \$30,000.” We had to be very careful not to divulge our results because people didn't want to know when they had something bad.

This condition, then, was a part of my diagnostic service for thirty-five years. Then, my technician left, so, now, we have stopped doing it. We'll have to start again. At any rate, that's just a little sidelight.

DT: Were there any other special tests that your lab was doing?

AW: Oh, yes, the freemartin test. Whenever a calf is born co-twin to a bull, a heifer, I forget how many percentage of the time, some of the male cells will stop the development of the female, and it will turn out, then, that heifer will be a freemartin. If heifers didn't conceive that were born early in the spring in England by the middle of November, they were called freemartins. We did the freemartin test for a good long time. I don't know how many animals we tested, but we did a lot of them. We did develop a vaginal probe for young heifers. If the probe could not be inserted more than seven centimeters into the vagina, the heifer had a nonfunctional genital tract and would be diagnosed freemartin. I understand that the probe is being used quite frequently in veterinary practice.

DT: So for these tests, were you getting animals from outside the state or was it just Minnesota animals?

AW: The animals would come from any place. Any bull that they would suspect, they'd send us a sample, and we'd just... Yes. I know one of the animals we got was from Pennsylvania. Anyway, we'd get them from all over.

DT: Was the diagnostic lab basically supported by the fees that you charged for those tests?

AW: Nearly so. You see, we charged thirty-five dollars for a test. Really, it took an awful lot of technical work to get some difficult tests done, so it really was losing money for the diagnostic laboratory. So we, now, are going to try to go into a molecular genetic test, but that's something in the future. I think it will be much more accurate and I think it will be much, much less costly.

DT: It sounds like during your career that you saw and participated in a lot of major innovations in veterinary diagnosis.

AW: Well, you see, this one about the chromosome problems was one big one and, then, of course, we were working on leukemia. We thought we had a thing there and then they found there was no relation between human and bovine leukemia. So that went flop. Yes, I was always trying to be a part of that sort of thing.

One other thing, I'll just tell you. In anatomy, when you teach anatomy, you can teach every bit of the body of an animal like that, and some parts of it, you never have any trouble in the clinic *ever*. Well, why spend much time on that? So Doctor Victor Cox and I came up with the idea of problem-oriented learning (POL). I started finding reports of cases that I would write up like that and have them ready for students to look at this case material, just in brief, so they could see that the reason we're going to study this liver is because. So they are now trying to get anatomy as productive as possible from the standpoint of student learning important things. So that's another thing. We gave a couple of talks, Vic and I someplace. I forget where. I've always tried to improve what was being done.

Another thing also I said, "Every student needs a microscope." So we got the University to buy microscopes for the students so that they would have something good to look through; otherwise, we didn't have any microscopes and they all had to come and look at one microscope. As we developed, you see, there were many things that we just had to provide that we didn't before. That's where we sit right now.

DT: That sounds great. I've always wondered about teaching veterinary medicine, particularly anatomy, there are so many different animals that you're potentially dealing with, do you do anatomy of every possible animal or do you just limit it?

AW: Mostly horses and cattle and, now and then, we get into sheep. We do dog anatomy, too. We do some cat anatomy, but, you see, we're kind of pressed when you have all these species and you've got to go through the anatomy.

DT: Is there anyone else that you would recommend that I talk to?

AW: Let me see. Doctor Tom Fletcher would be a very good one. I'll tell you, I am now sharing an office with Doctor [Tina] Clarkson. She is a person about fifty years old. She was a student of mine for her DVM, and received her PhD degree at Texas A & M. She's been in practice in small animal medicine and is very versed in this matter of client relationships. In other words, when a person

comes in, how can you make them feel at home and speak professionally without confusing them with what you say? She's a very sagacious person and I hope someday she's a dean. She'll be a good one, too. Doctor Victor Cox our large animal anatomist also. They are, right now, our mainstays. All three of them are veterinarians.

I still think that we need to have someone who has a clinical training before they try to teach veterinary students. That's one of the reasons I worry in veterinary medicine, that, in some states, the non-veterinary people are allowed to do treatments on animals, which they are not capable of doing properly. Right down in Oklahoma, the legislature allows it. In Iowa, they're still working on it. This idea of veterinary technicians trying to treat animals is making it difficult, you see, for veterinary medicine.

DT: That's really interesting. Is that move to get veterinary technicians to treat because there are not enough veterinarians or is something else going on?

AW: Well, they all try to get in there and try to be capable of treating animals just because they love animals. Also people think that it is too costly to go to a veterinarian. When it comes right down to it if you can keep that animal healthy because you're able to diagnose properly, that's important for the client. Yes.

We have other things going on right now. For instance, Hazel and I were talking about what we heard on the radio this noon about all of these courses that are taught over the... What is it, Hazel?

HS: The liberal arts, history.

AW: No, no. We're talking about getting a course over the...

HS: Oh, doing everything online.

DT: Right.

AW: This online stuff. It is not good.

HS: You lose all the values of different people and different viewpoints. I suppose they'll have to discover that before they go too far or they've gone too far and, then, they discover the losses from personal contact. It's not the same by a little machine.

DT: It is very disturbing that that trend is taking off.

HS: Yes. As I say, there will have to be a big move towards that until they find what the limitation is.

AW: A little side issue... Hazel and my daughter [Elizabeth Weber] have put together... Hazel has done paintings all over the world. See those up there?

DT: Yes.

AW: She does them on the spot.

DT: Wow!

AW: She's been all over the world. Hazel put together all of these paintings and Elizabeth wrote poems to go with them. They published this book and it's called *Porthole Views of the World*. Sometime, you might see it.

DT: I will have to look that up. That's wonderful.

AW: There is a montage on that wall as you go and you'll see all the places that she's been. Some, I've been with her, you know.

DT: That's wonderful.

AW: She's a *Weltbummler*. Do you know what that means?

DT: No.

AW: That means, in German, bumming around the world.

HS: A bum.

[laughter]

DT: It sounds good in German.

AW: *Weltbummler*, yes. I know German quite well. I know some Japanese, too, because of my son lives in Japan with his Japanese wife.

I think we've digressed from the topic.

DT: Oh, no. It's all really helpful and interesting. Is there anything else you think I should know about the history of the College of Veterinary Medicine?

AW: Well, as I said, for the first seven years, we had to go and scrounge tissues. We didn't have, really, the place to do anything. Then, as we expanded, of course, we'd find that they were in the middle of building something and we still had to teach in the middle of it, and, as I said, that rock that came out of the ceiling there. It was kind of tough for a while there. Then, of course, we were having problems with the An Sci [Animal Science] Med Building. We had to be very cautious how we dealt with them. We'd move into a place because we had need of space. They didn't have many questions, you know.

DT: Were you ever tempted to leave Minnesota and work elsewhere?

AW: Well, I was asked to go down to Georgia and be head of the department, and then out in California where they started a vet school, that too, and down in Illinois, but I always thought, look, I'm happy doing what I am right now with the faculty we have so why do I want to change.

Listen, why don't we put it this way? I'll get some pictures arranged. Do you have a phone number you can give me?

DT: Yes, yes.

Well, thank you, Doctor Weber.

[End of the Interview]

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