Waldo Keller

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Jeff Charnley,
interviewer

Charnley: Today is Tuesday, October 2nd, the year 2001. We're in East Lansing, Michigan. I am Dr. Jeff Charnley, interviewing Dr. Waldo Keller for the MSU Oral History Project for the sesquicentennial of Michigan State to be commemorated in the year 2005.

As you can see, Professor Keller, we've got a tape recorder here today. Do you give us permission to record this interview?

Keller: Yes, Jeff, I do.

Charnley: Let's just start first with some general questions about your personal educational background prior to college. Where were you born and raised and where did you go to school before the university?

Keller: Well, some people won't believe this, but I was born and raised in a small farming community in Ohio, northwest corner of Ohio, where my father was a veterinarian. The name of the town is Hicksville, Hicksville, Ohio. I was born there in 1929 and went to high school there and went on to college, intending to be a veterinarian.

I had an older brother, three years older, and we were very close, and he was at Ohio University. So I went down to Ohio University for one year to spend with him, and then I had to

move up to Ohio State to finish my pre-veterinary curriculum, and then entered veterinary school after the second year and graduated then in 1953 from the Ohio State University.

Charnley: So your father was an important influence in choosing that.

Keller: Yes, yes. I grew up with veterinary medicine and loved animals and loved getting out with him.

Charnley: How did he involve you in his practice?

Keller: Well, he let me jump in the car and go with him anytime that I wanted to. And then, of course, when I got into veterinary college and went home, why, really, he started to train me then and give me some education outside of school.

Charnley: Your classmates at Ohio State, did they come from that same background or did they have parents that were also vets?

Keller: I had a couple classmates whose fathers were veterinarians, but I can't recall more than about two, and a good share of them were—well, this was right after the Second World War. There were about sixty in my class, and there were ten of us that were not veterans. So the rest of the class was a mixed bag of people that had been through the war. They were a little older and a little wiser, and came from mostly Ohio, West Virginia, and then quite a few from Indiana, because at that time Purdue did not have a veterinary college yet. So there was a substantial

group of people that were from Indiana and returned there, so there were a lot of Ohio State graduates practicing in Indiana, in the more central part of Indiana. A lot of our Michigan State graduates also went to Indiana, and they populated the northern part of Indiana.

Charnley: Had your father gone to Ohio State?

Keller: He did. He went to Ohio State, but he didn't finish at Ohio State, because there was a private college at Cincinnati in those days, and he felt that that was a better clinical program than they had at Ohio State. Plus, he was running out of money, and he had a friend down there who got him a job as a motorcycle policeman in Cincinnati in 1915. So he actually graduated from the private college of veterinary medicine in Cincinnati.

Charnley: How would you describe his practice?

Keller: His practice was similar to the veterinarian who wrote *All Creatures Great and Small*. It was a farm practice, mainly, and he was just beginning to do a little bit of pet work. He did whatever was necessary for people, but he didn't have a building or a small animal practice, per se. But that part of the practice was just becoming into vogue, so it was strictly a small farm practice.

Charnley: How did the depression affect the practice?

Keller: Well, you know, there was not much money going around in those days, and the farming business was very poor. The effect was that—we talked about this recently--we really didn't suffer, because all my cousins were farmers, so we had plenty of food. We had no lack of food. And growing up in those times, you didn't think about a lot of other things. You had what you had, and that was not much money. We did not have a lot of material things, but that didn't seem to bother us.

He was busy, but there was a lot of bartering. I remember finding a book that he had kept track with the man who owned the hardware store, whose name was Glen Bregoin [phonetic], and he also had a farm and had animals on the farm. So I discovered this book in which there's a notation in there of a hammer and some nails and the price of it, and then under that "castration of pigs" and then the equation at the end. And I think that's a lot of what was going on in those days; it was bartering.

Charnley: Interesting. How would you describe your undergraduate education?

Keller: Fun. My brother was a little older, had been in the navy and had gone through a couple navy training programs. He was a radar operator. He learned how to study, and I hadn't learned that at Hicksville High School. So he had to teach me that when I got to college and also told me the importance of studying and learning, because you had to produce a certain level if expected to get into a professional college.

It was fun. My mother was a music teacher, so I started playing the trumpet when I was a very small child. So I played in dance bands in high school, and so I immediately got a job with a band at Ohio University, and then when I went up to Ohio State, I also got in with a small

group. That was a way, of course, of making money, and it was a pretty good way of making money because you could do it in a concentrated time on Fridays and Saturday nights, whereas other people had to have jobs that spread out through the whole week.

Charnley: Had you considered becoming a professional musician?

Keller: Yes, and my mother was very fearful that that's what I was going to do. But I played with some bands and took a couple road trips, and I decided, after that second little road trip, that playing music was a very good hobby, but having to live the way you did to make a living at just music, I wasn't prepared to do that. And I've never regretted that decision, because I don't think I would have ever been good enough to have been the top trumpet player in the country, and I really just enjoy it.

Charnley: We talked a little bit about your practice after you graduated. What did you do after you graduated?

Keller: Came to Michigan State. I had always intended to go back home and practice, relieve my father. I had a mentor at Ohio State. I lived in the clinic there for about three years and got to working with Dr. E. J. Catcot [phonetic], who encouraged me, because he said, "Of all your interests that you have, you ought to try to think about being at a university. You don't really need to go back to Hicksville."

And that was a tough decision, of course, to make, but in about February of my senior year, they had a big veterinary conference, and they sent two representatives up from Michigan

State looking to interview potential candidates. They wanted to get outside of their own graduates here and look at somebody in small animal, in surgery, mainly. And that had always interested me, and I had spent a lot of extra time trying to learn to do surgery. Dr. Catcot recommended me, and so they interviewed me.

I went back home and told my father that I really thought maybe I'd like to try a university life for a little while before I came back home. Now, at this same time, the Korean War was on, and we had an ROTC unit at Ohio State in the veterinary college. I had applied for active duty, figuring to get that over with, and I was at that age where my brother was in the Second World War. I was just a little too young to go, and felt the need to donate some of my time to the military. So I made this application and had been accepted already. So then this other thing came up, and I went back to the military and said, "I have a potential for a job. Would you postpone my enlistment for at least a year?"

Unbeknownst to me, somebody up there was really thinking about keeping people happy if they went into the service, and they said, "Sure, we'll do that for you."

So I took the job at Michigan State and came up here on July 1 of 1953 and told everybody here that I was planning to go in and serve my time in the military, and they said, "That's fine. If it looks like at the end of a year you work out and we think we want to keep you, we'll put you on a leave of absence."

So that's what happened. I came up for a year, and I really liked it. They gave me a leave of absence, and I was a veterinarian in the Strategic Air Command.

Charnley: Where did you serve?

Keller: My first serve was in Savannah, Georgia, for a short time. But then I kept asking for an overseas assignment, since I was still single, and they finally gave it to me and sent me to French Morocco, to Sidi Ziane, where we had a base. Then I spent a year in French Morocco and came back and finished out my tour at Westover, Massachusetts, and then I returned to Michigan State.

Charnley: Westover's not far from Springfield, is it?

Keller: Right. It's just outside of Springfield.

Charnley: And you were working as a vet, is that right, at that time?

Keller: Yes. The Strategic Air Command, of course, had Curt LeMay. General LeMay was protecting the world at that time. We had airplanes in the air all the time, day and night, and they did have the A-bomb. So we had a lot of security on these bases, and all the security was done by the military police, with guard dogs. Between two bases in French Morocco and the radar sites out at the edge of the Sahara Desert, I had over 150 dogs that I was in charge of in Air Command.

Plus the veterinary service, because of our background in meat inspection and public health, were the public health officers and were in charge of food, actually, and food storage and water purification. We bought a bunch of things from the natives, and those all had to be inspected and source inspected, so I got out around and saw some of the countryside and how they raised vegetables in the desert, which they did successfully, the French did. That was a very interesting experience.

Charnley: What breeds were the guard dogs?

Keller: All German shepherds.

Charnley: Were there any special problems that they had in the desert that they might not have encountered other areas?

Keller: No, and I was always surprised, because when I got over there, we had dermatitis cases, and I thought, well, certainly in an arid, dry climate like this, with the temperature constantly in the nineties, we'll see a lot of problems. But we had the groomers brush these dogs out every day. They got very good care, and that was the healthiest bunch of animals that I've ever been around.

Charnley: Was there anything from your time overseas that you learned or later on that you came to value?

Keller: Well, I worked with a lot of different people, and I was in French Morocco at the time that Morocco turned back from French rule to Arabic rule and Moulay Hassan was brought back out of exile. That was a very interesting time politically, having been out then in the countryside and watched this operation, because there was shooting going on around our base. They had a little civil war here and there. And looking at the way that population lived has given me a little bit of understanding of the problems that we have continuously had at the eastern end of the

Mediterranean and why we can't resolve some of the problems that we've had, and those continue on now.

Charnley: Did you maintain any contacts with Michigan State during your time over there?

Keller: Oh, yes. I had a couple of people that I wrote to, and they'd inform me as to what was going on and what kind of changes were going on.

Charnley: Who was the dean when you were first there?

Keller: Dean Park,, a very interesting man who had a big background in Michigan agriculture and Michigan public health. He was a very good dean.

Charnley: When you came back, did you experience any culture shock or anything like that?
Keller: No. I got back to Westover, and that cured the culture shock from French Morocco there. But surprisingly, in just the—I was gone two and a half years--there hadn't been that many changes going on. Michigan State was beginning to grow. When I got back, it was obvious that probably if I was going to stay in academia, I needed to get another degree, a master's degree, at least, if I was going to remain a clinician. And so I started doing a master's degree in January, and my appointment didn't come back until July 1. So I had the GI Bill, so I went to school here full time, got a master's degree.

At that time I was very interested already in the eye and got with a Dr. Esther Smith and Dr. [M. Lois] Calhoun. Dr. Calhoun was the chairman of anatomy, and between she and Dr.

Smith, they also ran the medical technology program, which was a part of veterinary medicine's responsibilities in those days. She was doing tissue culture work, and that fascinated me, so I did work under her and got my master's degree, got most of it done before I went back on the job on July 1.

Charnley: How was it that you became interested in the eye?

Keller: Well, I got very interested in surgery, and I was teaching surgery, and the smaller it got, the better I liked it. There were no veterinary ophthalmologists, and I did have a number of eye problems that came in. So there was a Dr. Art Schultz [phonetic], who was a well-known human ophthalmologist in this area, whose son, incidentally, now is a veterinarian. He told me that I could come over and work with him and watch him do surgery, and he'd come over and watch me and help me along. So he did, and that really got me very interested in doing eye work, and since there were no veterinary ophthalmologists, I got a lot of cases sent to me. By the time 1965 came around, I was interested enough that I was looking for some way that I might get some additional training.

We had a graduate of many years ago, Seymour Roberts, who's now dead, but he was a fascinating individual, very intelligent. He was interested in the eyes, and he was one of about four veterinarians in the country that were proclaiming themselves as ophthalmologists and were trying to do some specialty practice. He was in California and had developed a close rapport with the ophthalmologist at Stanford [University] Medical School, and they were interested in comparative ophthalmology, so they established a fellowship out there. A close friend of mine was out there in the first one that they had, and I talked with him and then I talked with Dr.

Roberts and talked with my colleagues here, and they all said, "Hey, why don't you go out there and be a veterinary ophthalmologist."

So I did. I took a leave of absence for a year in 1965, went to Stanford Medical School as a fellow, and that was a very excellent experience for me. I went out there with a wife and one child that was one year old and one that was two years old.

Charnley: In California.

Keller: In California.

Charnley: That was an exciting time out there, too.

Keller: It was, yes.

Well, when I came back, then I really wanted to do just ophthalmology, but I still had to teach surgery. So I did continue doing that and got to work with an internationally known orthopedic surgeon that we had here, Wade Brinker, Dr. Wade Brinker. He brought a lot of honor and respect to the college and the university.

Wade and I, as a matter of fact, got involved with television, when television first was available, and taught the first courses by television. Surgery, laboratory part of the course we taught by live television. There was no tape in those early days. And because of the interest and the facilities that weren't available yet, they set up--the first television studio, actually, was in Giltner Hall, and the main lecture hall there was wired for television. I think that's probably the

first hall at the university that was wired for television. So we were teaching by television at the very early time, and continued that interest. That was an exciting time.

Charnley: That interest in technological education and TV being an early one, were there any other on campus that were involved in that or interested in it, or would you say that school was primary?

Keller: People in education. Yes, there were a group of people that were beginning to get interested in it.

Charnley: Was it broadcast?

Keller: It was broadcast live to only a few rooms. Didn't have any cable across the campus. Giltner Hall, I think, was the first hall that was wired to do that. So they brought classes in from other places to use that lecture hall. We got them to bring a camera right down to our surgery lab so that we could perform the surgery, and then the students could go right to the laboratory and do it.

Charnley: At what point did they get taping capability?

Keller: It was probably at least five years.

Charnley: Oh, really.

Keller: Yes, before we really had videotape available. So we had to really try to do some innovative things, like I wanted to teach the students how to make an incision right down the mid line of the abdomen, most common incision for spaying dogs and cats. So I had a friend, Roger Brown, who had been a practitioner and then was a Ph.D. of anatomy, and he was teaching in anatomy.

So we got them to set up two cameras, one with a cadaver and one with a live animal. Of course, we had them both surgically draped. Then he would go through the first incision through the cadaver, and, of course, there was no bleeding. Then I would make the first incision, and then while I'm stopping the bleeding, getting those vessels all tied off, Roger would go ahead and demonstrate on the other camera, number two, the incision in the cadaver, and then he could show the layers, and we could go through it layer by layer. We thought that was quite innovative.

Charnley: When you were assistant professor, how would you describe the MSU vet school?

Keller: Average.

Charnley: Average?

Keller: Yes, yes. One of the things that, when I first came here in 1953, President [John A.] Hannah personally interviewed every new faculty member, so I went over and I talked with Dr. Hannah, and he impressed on me that we were a young university and the College of Veterinary Medicine was even younger than the university. He could foresee great things for the university and for the profession, and he was only interested in people that had some vision and some

foresight of what to do in the future and how to make it better. That always impressed me, and I thought that I was surrounded by colleagues that were doing that. So I think that was a great stimulus to me throughout my time here at Michigan State to try to do things that would be out on the cutting edge and getting some new programs started, and we were able to do that. So we did start to grow.

At that time, Dr. Willis Armstead [phonetic] was the dean, and I being young and brash and back from my experience at the medical school in California, I kept pushing him and saying, you know, I was convinced that the way that we would become one of the best colleges of veterinary medicine was to pursue specialization in all areas, in large animal and small animal. We had to have the research going on here, and we had to have the best clinicians here. And I kept hammering at him with that, and after about two years, he brought me in and he said, "You know, if you really believe that this is what we have to do, then you got to figure out how to do it." So he said, 'I'll give you a chance to put your money where your mouth is," and made me chairman of the department.

Some of the first things that I did was to help establish an internship and intern residency programs, because we really didn't have any well-trained specialists. They were mostly self-trained and worked together. So I felt that we needed to start some formal advanced training. So we did that, and we were one of the first universities, one of the first colleges then to have a formal internship and a formal residency program.

Charnley: How did you find the vets in the area, or, let's say, in Michigan, were they receptive to that idea of the internship?

Keller: Very much. We've had a very progressive group of practitioners in the state, and we've always worked very closely together. An association was formed, the American Animal Hospital Association, and that was mainly the result of practitioners here in Michigan, and they pretty well ran that organization for the first ten years of its existence. And they organized that with the sole goal of increasing the quality of veterinary care for pets, so they went right along with what I was trying to do and supported it and helped push some of their friends and board members, because we had to have a little more money. And fortunately, this all came about during some of those expansive years of the seventies, so money was available. We did get those programs started, and we have continued with that. Our intern residency programs here, I would have to say, right now are considered the best in the country, and our graduates have gone to most all of the universities around the country as specialists.

Charnley: What was the clinic or your department called at that time? This was in the mid-sixties.

Keller: Yes. Right after I was made chairman, in discussions with the dean and with other people, at that time we had a surgery and clinics and medicine and clinics, so we had two of us that were chairmen of departments in which we shared all these faculty. It made it about impossible to really develop the programs, so we changed the names of the programs and made them small animal surgery and medicine and large animal surgery and medicine, and I think that was a very beneficial move. It was an obvious move, and the faculty were not going across the board too much. As specialists, we do cross the board. As a veterinary ophthalmologist, I, of course, look at all species of animals.

Charnley: Not that you would know the exact statistics, but how would you say that this change affected the numbers that came as students?

Keller: I don't think that had an impact. Students, you know, don't look at the depth of the program that much. But there was an influx of interest in veterinary medicine, and the student number, we were getting more and more applicants. We slowly went from 60 students to 100 students, and now it's, I think this year's class—well, I know this year's class is 105.

Back in those early days, there was one or two women here or there, and I have a statistic here someplace that I thought was quite interesting in that by 1976, MSU had graduated more women than any veterinary college in the United States and Canada. We graduated 252 women. Cornell had graduated 93. This is by 1976. Then in the eighties, more and more women started making application to the college, and the numbers in the classes increased tremendously.

This year's class—this is a surprising statistic—there are ninety-eight women and five men in the current class. I think that that's a higher percentage than would be an average around the country, but the trend is there. I understand the trend is the same in medicine. We thought that a lot of this might have come after *All Creatures Great and Small* came about, but I'm not sure that that's the reason.

We do have a national application service now, so that seventeen of the twenty-eight veterinary colleges are part of this, which Michigan State is a part, and so people can, from all over the country, can, in fact, make application. So it runs the applications up higher. You had a larger group that you select from. But we still maintain less than 25 percent from out of state, and that's about where we are. But I think statistics would say that, of the people that are

applying, the women obviously have some very good scores. The other thing, in our profession in the early years, there's a lot of manual labor associated with it, handling the animals.

Charnley: With large animal or both?

Keller: Yes, with large animal. And now with a lot of the people going to the small animal, they're not handling those animals. Plus, we have other ways to handle them now, with all of the medications and all of the drugs. I mean, we can inject an elephant and have me lay down and go to sleep, which we couldn't do years ago. And so the pharmaceutical industry has been very helpful in giving us an ameliorator not only to treat disease, but to handle the animals.

Charnley: In terms of your administration, when you were chair, would you talk a little bit about your administrative duties?

Keller: Well—

[Begin Tape 1, Side B]

Charnley: When the tape ended, we were talking about your administrative duties. Would you talk a little bit about serving as a chair and then some of the other administrative duties you had?

Keller: One of the things you discover when you go from one part of a department to the office of the chairman is that the flow of information stops, and you don't have the freedom that you had to discuss things and talk with them.

I tried to maintain an easy rapport with all of the clinicians and the faculty. I think we were able to do that for the most part. But you do have to evaluate people and you have to make sure that indeed they are moving along and progressing, and you have to do whatever you can do to help them.

The most interesting experience I ever had when I was first department chairman, had a person who had been around for quite a while and had kind of semi-retired *in situ.* He was a smart person, had not done anything really productive for four or five years, and he was a person that I knew extremely well. So I decided that I would bring him into the office and say, "How can I help you?"

So I did. I brought him into the office, sat him down at the table, took a blank piece of paper, a tablet, and a pen, pushed it over to him, and I said, "Write down five things that you would most like to do professionally in the next year, two years, three years, whatever." And I thought, "This is great. Now I'll get him thinking about what he wants to do, and then I'll figure out a way to support him to do that, if it is appropriate for the department."

Well, he looked at it for a few minutes, and he slowly pushed the paper back to me and said, "If you think you're going to trick me into getting committed to certain things, you're crazy."

And I was struck dumb. I just sat there and I looked at him and I looked at the paper, and I said, "I'm sorry. I really was trying to help."

That was an interesting lesson to learn, that you have to realize that the thought process changes toward you when you're a colleague and when you're a chairman. But it worked out. I enjoyed it, and we were able to get some additions and get the internship residency programs going. As a matter of fact, we ran the first formal intern-matching program right out of my office here, and then we turned it over to the clinicians, National Association of Veterinary Clinicians, to run, which they still run today, in almost the same format that we ran it then.

Charnley: You mentioned the building.

Keller: Well, it's been an interesting progression of buildings.

Charnley: How did that develop?

Keller: When I first came here, Giltner Hall had just been completed. They'd completed the middle part, and they had connected the early anatomy building with the clinical building, and in 1952--that was just a year before I got here--Giltner Hall was completed. So we had all of the college in Giltner Hall.

The year that I left, in 1965, we had the new clinical facility out on Wilson Road under construction, and I missed the move, fortunately. I didn't have to move my things. They were moved for me. By the time I got back then from Stanford, I went to work in the new veterinary facility, which was at that time the best in the country. It was very good, and it served us well.

Charnley: Did you have any input in how that developed?

Keller: I had a little bit of input, yes, in how the surgery area and the teaching surgery laboratories were designed, because that was my area, and they were very good about coming to us and asking us to help with the design of the building. So, yes, I had some hand in that. That's the only hand I had in that.

But then later on, I became acting dean, and during the time I was acting dean, I spent all my time trying to get money for the new building, because we were desperately in need of new facilities. The medical schools were here, and we had joined hands, so that we had not built departments in all the different colleges. We had individual basic department—anatomy, physiology, pharmacology—serving all three medical schools—veterinary medicine, human medicine, osteopathic. We're the only university in the country doing that, and we made it work. It wasn't always easy, didn't always work the way we hoped it would, but it did work.

So we were adding faculty in the basic science departments, and we just had to have more space, and if we were going to get some up-and-coming research people, we had to have better research space. Then the demand was there from the agriculture community and from the state, demands on the profession to solve the problems with disease in animals and the quality of food, and I was successful in getting the legislature to commit $56.8 million. So we built the new facility and modified the old facility from '65, and I got them to set aside $10 million for equipment. And in deference to the provost office, they told me, "You'll never get that. Don't ask for it." And I said, "Yes, I will get it, because I've got legislators telling me that what you're proposing to do with it, we will support," which they did, and that was to computerize the whole college.

So when that new building came up, the whole building was wired for computers. We had the money to put into some computers and central computers, and we started to computerize the clinics, as well as use computers in education. So we had a classroom of 108 chairs—I think it's 108—with a computer at every station, with a central facility that the faculty could then do whatever they wanted with those computers out there. And that's an interesting story, because we have everything from the people that don't use it at all to those that have it all on a floppy disk.

So all of our students were on e-mail. We set up the e-mail right away for them so that they could communicate directly with the dean's office, directly with anybody. That was very interesting, because we got all kinds of interesting mail. I did go to the students and say, "Look, if we're going to make this work now, we've got to keep it on a professional basis." And surprisingly enough, the professional students did that.

One interesting experience with that is, we had a number of women in the class that next year when we first brought up the computers, and there were two or three of them that had children, and so those children had to be taken care of. The one student stopped me in the hall and said, "I really thank you, Dr. Keller, for getting this e-mail up and going." She said, "My kids have to check in with me when they get home. They get on e-mail and let me know they're home while I'm in class." So there were a lot of interesting things.

Well, as a matter of fact, I just talked with our admissions officer yesterday, and so I asked her, I said, "You know, what percentage of communication would you say you're now doing with perspective students on the computer," because we established a long time ago a Web site and made all of the information available.

She said that 75 percent of their communication with high school students interested in veterinary medicine, and then with the applicants that come in, 75 percent of that is now done through e-mail.

Charnley: It sounds like you're ahead of the curve, also.

Keller: Well, we were. And a lot of the veterinary colleges around the country sent people here to see the system that we had and how we set it up. There were no programs in place to run the clinics, and we finally got, about ten years ago, a group that put together a package that looks like it's running the hospital all right now.

But we were way ahead of the curve with use of television and use of video and use of computers, interdigitating the two, so that we have a lot of students that—and then we put—this wasn't my idea, but somebody else came up with the idea that, well, now we have this, we'll have to make it available, so how do we secure the building and make it available? So we put in an identification system on all the doors so that students could gain access to the facility and to the laboratories and to the computers twenty-four hours a day, seven days a week, and we still could maintain some security. And it was interesting. I've been going there at all different hours and would find some students in there working at the computer at ten o'clock at night. They took advantage of it.

Charnley: Who were the friends in the legislature that you were able to work with, or allies or supporters?

Keller: I probably shouldn't name names on that.

Charnley: Well, I mean, it's part of the history.

Keller: "Shorty" Hoffman [phonetic] was one of the first ones. Shorty Hoffman was one of the first ones, from agriculture over here, who pushed some of the agriculture people to listen up and get involved with getting some money down here for agriculture and for veterinary medicine. So he was a member of agriculture at that time and was very effective with some of the legislators.

Charnley: What years are we talking about now?

Keller: We're talking in terms now of '75.

Charnley: So the PPB incident was part of this, too?

Keller: Yes. And the PPB, we were able to parlay that into a new diagnostic laboratory, an expansion of the diagnostic laboratory, and that became at that time one of the best diagnostic laboratories in the country, not one of the largest ones, and has continued to be a very good one and well thought. And now with the problems in deer herd and with tuberculosis and this coming down to the dairy industry, along with some other diseases that re-showing up, the legislature has just this year set aside $58 million, and they're in the process of designing and going to start putting up the largest diagnostic laboratory, more floor space than any place in the country. And this will be a national recognized diagnostic laboratory, not just for the state of

Michigan, but the current dean, who has a lot of Washington background experience, Dean King, is parlaying this into a national operation, because of all the current problems with potential hazardous materials, what to do with waste management and what to do with quality of food in animal origin.

This is the last piece of building. The piece that I skipped over was the Food Safety and Toxicology facility, which is now about eight years old. That was something that Bob Leader [phonetic], chairman of pathology, talked with me a lot about, and I went to Washington with him to see if we could get some national support for a facility. Nothing like it ended up. Nothing as big or as good. And it took ten years before it came about. But this also involves our farm.

We have a 120-acre farm, which is a research facility, and along with this project is a containment facility, and we have one of the best and largest containment facilities in the country. A containment facility is a building in which you can totally contain infectious disease organisms, whether it's parasitic, whether it's bacterial or viral or whatever, so that everything that goes in or out of there has to be monitored. And this we have had now in operation for about four years, and there is a lot of good research going on in our college as a result of this. And the Food Safety and Toxicology Building, which is just completed, is all a part of this program to look at protecting Michigan and the country and, as a matter of fact, internationally from the standpoint of the quality of food and changes that are going on in animal production, looking at the very large units. When you've got a problem, you've got a massive problem in a hurry, so you've got to get an answer immediately. So between our diagnostic laboratory and our containment facility, we'll be able to look at these kinds of problems.

We're also involved with looking at all environmental issues, so we're beyond just the dog and cat and the cow and the horse. We into a lot of public health, and as we see emerging diseases, a lot of the old organisms that we thought we had completely controlled have come back, like tuberculosis, but some of the others. Well, foot-and-mouth. Foot-and-mouth has been around forever, but suddenly is of international scope, and it's been literally disastrous in England, and we've got to make sure that that kind of thing cannot happen here.

I think our college is in a position to confront these issues and come up with solutions to them, and a lot of this will be both research and service, because there'll be a lot of extension. Information has to get out to people, so there'll be a big thrust in extension as a part of this.

Charnley: I hate to keep going back to the PPB incident, but I'm wondering to the degree to which that stimulated the support for the food toxicology lab and that sort of thing, because maybe we weren't adequately equipped or something that really didn't make sense for happening actually did and to explain it the complexity.

Keller: Yes, in those days, up until then, we didn't think globally; we thought locally. If you had a problem down in the southeast corner of the state, why, fine. You went down; you dealt with it. If you had a problem in the northeast, why, you went up there and you dealt with it. And you didn't think in terms of the impact that that might have on the whole state.

But suddenly, suddenly we had something that happened that dispersed itself out there all over the state. And we had a massive cleanup that was necessary, and that brought people's attention to the fact that, hey, a little microbe here or there and you could affect an awful lot of people, which is what we're worried about right now. So we're thinking globally, and all of

these programs potentially will help the country, not just Michigan, not just Michigan State. But I think Michigan State is going to become recognized as one of the most progressive and helpful colleges of veterinary medicine in the country.

Charnley: Were there sources of funding other than the legislature that you had to try to attract? What were those?

Keller: Oh, yes. NIH [National Institute of Health].

Charnley: So federal money you went after.

Keller: NIH and USDA, yes. That's all federal money in the containment facilities and in the Center for Public Health, Food Safety and Toxicology. And now we're looking at a grant from the foundation that has just come through, and the dean wants to establish a center for comparative oncology.

Charnley: This is MSU Foundation?

Keller: Yes. So we deal with cancer, have dealt with cancer for years, and we've developed a very good genetics laboratory in which these people can look at the DNA and do all the genetic, the gene identification. And we've established at least three diseases in dogs and can now test offspring to see if they're affected or not, and we can choose and eliminate some hereditary diseases. And we think that with all of the cancer that we see, especially in dogs, there have to

be potentially some comparative answers. So that we're looking at this not just for the sake of the dog and the cat and the horse, but from the standpoint that perhaps this will lead to some comparative studies that will help get us some answers of cancer.

Charnley: How would you say the small animal clinic developed under your tenure? Did you have any personal goals or guiding principles?

Keller: I understand the guiding principles. Our guiding principle was that we wanted to have a specialty oriented faculty, have the best people that we could get, people that were interested not only in developing new ideas, but in developing residency program, training programs, providing the best service for pet owners, animal owners in the state, and being the leader in our profession.

We were very fortunate in having some people like Bob Shermer [phonetic], Wade Brinker, who were internationally known and well thought of, and we had a lot of people then that were excited about coming to Michigan State and working with this nucleus of people. And from that, I was able to build then a substantial department, with most of the specialties covered.

Charnley: How did you develop that international reputation. in terms of contact with programs?

Keller: Yes, faculty going out and presenting. And that's where, when you're on the cutting edge and you've got new information, all the national organizations and the local organizations and the state organizations want your people to come and talk, and we had lots of people on the road, presenting professional programs all over the country, and internationally.

Charnley: So that outreach was really critical in building that?

Keller: Yes. Yes, you build a reputation of reasonable excellence, and you attract the best people as graduate students and as interns and residents.

Charnley: How would you describe the quality of the vets that MSU was turning out in your tenure?

Keller: Because of our strong clinical program and our use of research people, in the early stages our students work with the researchers in their laboratories, and because of those combinations, we're turning out a student that is as highly qualified as any you'll find. They're very well trained, and demand for students in internship programs around the country supports this. We've had large numbers of our students go on to internships and residencies. So I think I could say, without too many people shooting at me, that our graduates are as well qualified, or better qualified, than any other veterinary college in the country.

We have a large clinical caseload, and that's what is required to develop clinicians and practitioners, and being specialty oriented, as we are, and developing a curriculum which is kind of unique around the county, too, in which the students elect their rotations that they go through. They don't have to go through every rotation, but they have a basic core of courses, of rotations, basic surgery, basic medicine, basic radiology, basic pathology, clinical pathology, that they have to take. Beyond that, they can elect to take ophthalmology. They can elect to take that twice, if they want to, in their combination junior and senior year. So that the ability of the student to

increase their concentration—we don't call it specialization, but increase their concentration in some specific areas, makes them very sought after.

As the clinicians that are looking to hire people come on, they say, "Hey, here's a person who spent all this time in medicine. That's the person that I need in my practice. Here's a person that has this additional expertise in ophthalmology. That's a weakness in my practice. I need to bring them in." So we did devise a curriculum that went along with our specialization, and I think that that has been very fruitful for the production of outstanding veterinary students.

Charnley: How about your own research? Did it continue in ophthalmology?

Keller: Yes, but it got waylaid. When I finished ten years at the department level, the dean asked me, the current dean was John Wesser [phonetic] at that time, said, "I want you to come up and work with the students. I want you to be my associate dean for student affairs and for the educational programs."

So I did that, and you can't hardly do that and continue to do the research. I continued to do some clinical research, just as in retirement now I'm still doing veterinary ophthalmology, because I'm working with laboratory animals for the pharmaceutical industry. All of the drugs that go to the FDA, those animals have to have their eyes examined. So I'm still active in doing that.

But I had a lot of interesting experiences working with the students, and I just recently had a call from a lady who's editor of one of the veterinary publications that said, "I would like to reprint your article that you wrote some years ago on stress."

You can't every day be working with professional students and not recognize that a professional college is a stressful environment. They are in class most all day, and there's very little time for them to fool around, and many of them don't discover time utilization soon enough to keep them out of trouble. So I recognized that there were a variety of reasons why students were not doing well in class, so we devised--I worked with Dr. Chaney [phonetic] over here in education. We previewed the students when they first came in to see what style of learning. She had a whole program, which she designed, which style of learning is this student going to do well in, and the style of education that we had in veterinary medicine was such that she could identify a group of students that she'd say, "Potentially, Dr. Keller, that group of students is going to have more problems in your curriculum than this group of students, so there's where you need to concentrate your efforts and look at what we can do to modify the teaching behavior of the faculty to adjust to this," and that's been the hardest part.

You have somebody who's been teaching successfully for a number of years. They're not too interested in any gross change of their lecture techniques or other things or supportive documents to help these students. But I devised a program, which is on the Web site, which is a time-management program, so that they can make out a schedule of the entire week, every day, when they're going to do what. And then I discovered, talking to students about trying to do this, a lot of resistance to formalizing a schedule. They say, "Dr. Keller, you're not going to tell me what to do every hour of the day."

I said, "I'm not telling you to do anything except go to class. So the first thing we'll put down on this whole blank page are all the lectures in the laboratories, and those are sacrosanct. You do go to all of those. You don't skip one to try to study for the next one. That's a vicious cycle that, in a professional program, will kill you."

But you do have to establish, also, then after you put that down, what I call "me time," what do you most like to do to keep your sanity. Do you like to run? Do you play golf? Golf is about out. It takes too much time. But do you want to do certain things, and do you have certain television shows that are a must? I learned that from a woman who came in and filled out her schedule, and she said, "There's no time for my favorite television show."

I stopped and I looked. Here's an active, professional student, and I thought, "You're committed to a program that you don't want to give up?"

And she said, "Absolutely."

And I said, "Fine, then that's what you call 'me time'. Put it in your schedule, but put it down so that when that show comes on, you turn the TV on, and when that show is over, you turn it off, and that's your 'me time'. And establish what you think you have to have to go along, and then if you need more time, if you're not doing well, you're going to have to cut into some of the 'me time'."

So there are a few of the students that are looking at that, and now there seems to be a new interest from somewhere in, what is this information that you put together on stress and the professional student?

Charnley: Because the stress have continued.

Keller: Or gotten worse. As the cost has gone up, demands have gone up, and their feelings that they're not getting what they're paying for can be very stressful.

Charnley: Let's talk maybe a little bit more about teaching. What changes did you see in students during your tenure as a professor?

Keller: I really believe that the students tended to be even more serious students. Because of the numbers of people wanting to get in, we have very bright students in the professional program, and most of them are very committed to getting themselves educated. So I think that's probably a significant changes, and maybe that's the more serious part of the world, of finding your niche, and the more people there are, the more serious you have to be about finding your niche. When I graduated, any one of the graduates, you could go out to most anyplace and just set up a practice. Now none of our students just leave—

[Begin Tape 2, Side A]

Charnley: This is tape two of the interview with Dr. Wally Keller.

When the last tape ended, we were talking about differences in students and also the commitment, and I think when the taped ended, you were talking about setting up a practice and what students do today.

Keller: Yes, it's a little different ball game. So they have to be better prepared, and they know that, so they're very serious about getting out and doing that. And most of them have to make that transition from an undergraduate student to the professional student. I think that I had a good rapport with the students, and continuing playing with the Dixieland jazz band, I think, gave me a little bit of students' rapport that many of them felt I was kind of part of the crowd. So

they would open up a little bit more to me as to what kinds of things were bothering them, and discovered there were a lot of things that bothered a lot of different students.

Charnley: Could we talk a little bit about your outside interests, the band? How did you get involved with the Geriatric Six?

Keller: Well, my wife and I are members of the University Club, and about twenty-eight years ago, I think now, we were out there for dinner, and a group of faculty showed up, playing Dixieland. Morrie Crane [phonetic] was the leader of the group, and I told my wife, "I've got to talk to these guys before we leave tonight, because I want to get back playing my horn or something."

So I went up and talked, and he said, "Hey, sure, get your horn and come out and play with us."

So I did that, and we're still playing together. We play in front of the stadium for all the football games, and we play other gigs here and there. It's a source of great enjoyment, a lot of camaraderie, and, of course, you can't be around Morrie Crane very long and not have a good time. [Laughter] So that is a pursuit that—that was my "me time". So when other things came up, they had to take second place to showing up to play with the Geriatric Six Plus One.

Charnley: Was there a downtime when you didn't play the trumpet for a while? You mentioned you had to get back to it.

Keller: Yes, yes, when my kids were born and while we were raising them. I would pick the horn up and practice, but I didn't try to become an active group and that. I was gone most of the day through the week, and then to turn around and be gone to play a job on a Friday and a Saturday night didn't seem to make much sense to me. So that was a down period of time.

Charnley: Were your children involved in music? Did you encourage them? You said your mother encouraged you.

Keller: Yes. My daughter never got real interested in music. My son became a drummer and played in the East Lansing High School Marching Band, and then he played in the Michigan State University Marching Band. We always hoped that he might decide to go away from home someplace farther, because we just live six blocks from the university. So he decided if he had a chance, he wanted to play. He'd been around and heard it all his life, and that was one of his little dreams that he satisfied.

Charnley: Whose idea was it to produce a record and later a CD?

Keller: Well, I think that was kind of a mutual thing. As you sit around and talk about, "What are we doing with all this?" somebody says, "Well, we probably ought to record it." We said, "Fine."

Morrie had contacts with the people over in the com arts, and we set up a time to make our first recording. And we had so much fun with that and had so much fun giving the records the way, and selling a few—never made the charts—that we decided that we would go ahead

then and make a tape. Well now, we're talking about a number of years here, you see. There weren't CDs back then. And then when CDs became available, we decided, "Well, we ought to take the best of what we've put on tape and add a couple more tunes to it and put out a CD." So we did. We had a lot of fun giving these out to friends and relatives around the country.

Charnley: How did the alumni respond when you showed up at football games?

Keller: Well, I think very positively, yes, and we became part of the official party at the bowl games. We haven't been to the last couple, but we went as the official band to most of the other bowls, the big bowls, and would play for every alumni event that they had, whether it was in the Palladium or whether it was in the hotel or wherever. We were always available to play the music and play the fight song and get them going. The response has always been very positive, and it's a lot of fun to have them come up. When we're over there on the bandstand before the football game, invariably some of our students will come up and want to say hello and shake your hand, people you haven't seen for maybe fifteen, twenty years. So it's a good experience. We're hopeful that they'll go to a big bowl this year and that the alumni association will still feel that we ought to go along.

Charnley: Yes. [Laughter] Maybe the Rose Bowl, even, I don't know.

During your career at Michigan State, besides the Geriatric Six Plus One, were you involved in other community activities?

Keller: Yes, I became involved with the Cub Scouts, and helped with the Cub Scouts for a number of years. That was my main outside activity.

Charnley: I see. Anything with 4-H?

Keller: No. I was not a 4-H'er. I wasn't raised on the farm. I'd get in programs, little programs part of the 4-H groups, but I've not been a formal part of that. But I had a lot of fun involved with the Scouts, and my son got caught up in that. And then he went on and became an Eagle Scout, and now his son is into Scouting. That's been a lot of fun.

Charnley: When did you retire?

Keller: For the last time, I retired in 1987. 1997.

Charnley: So you were brought back out of retirement?

Keller: Well, I was the acting dean, and I spent that time politicking and decided that that wasn't really what I wanted to do for the rest of my life. So I did not try to throw my hat in the ring to be the dean at that time, and I went back to the clinics, became an ophthalmologist again, which I'd never really given up.

Then there was another change and the dean left, and I was asked to once again be the acting dean. So I told the provost, "This time around, if I'm going to do this, and you're going to take your time looking for the right person, which you should, then you got to make me the

dean." So she did, and I then ended my career in the dean's office and am now dean emeritus, which won't buy you too many apples. [Laughter] But it's been a nice experience.

I went back realizing that there were some other things that I wanted to hopefully get done, and part of that had to do with the diagnostic laboratories, and to also help push a little bit more of the academics into the computers.

Charnley: Do you still see that as an integral portion of the curriculum?

Keller: Yes, and, you know, it just has to be more and more. With all of the things that we can do, everybody said, when I said, "Now, let's develop a program here for, say, dermatology."

The dermatologists first looked at it and said, "I really don't think I want to do that, because I've got all these slides and things available for the students now, and there's not really storage space enough to put it on."

I said, "Well, yeah, but don't worry about that, because by the time you get it done, there will be storage space, the way computers are going." That was the way it was happening.

So he did turn around and do that, and now he has a very nice program going. Others haven't done much with it. And as I say, one person, Dr. Jack Judy [phonetic], took a leave of absence and came back. He taught the business course, and he had the whole thing on a floppy disk. So he just hands out a floppy disk and says, "Here's the course. Learn it. What we're going to do in class is discuss it," which is a whole new ball game as far as being able to work with students.

Another thing we did was, we had a director. We now have a director, also, of the computer center. I said, "Look, what we need is a program that will allow the faculty member to,

in the process of lecturing, want to find out about, how am I doing and how are the students doing?" So we designed a program so that now faculty can, at any point, stop and say, "Hey, here's a pop quiz. I'm not going to grade it. I could. But I want to know, are you getting my points? So here's a list of five questions," or ten or whatever he wants to pop up."

And he pops it up, and it appears on everybody's screen. Individually, then they answer it, they answer the thing, and it collates it immediately so that he can see the responses as they come in and he can tell what percentage of the class is getting it or which is not. He can also quiz them that way and give them their exams that way.

So there are just a great many things that can be done, but it has not been extremely easy to convince faculty that they need to change the way they're teaching, that there is, perhaps, a better way to deliver their information and for the students to end up knowing more of it, because the end point of utilization of the computers is that every student, at the end of the class, will have the same amount of information percentage-wise to what you want them to know. They will have learned 100 percent of what you want them to know. We have a third of the class that's going to know 130 percent of what you wanted them to know, and that's the other part that you want to make available, so that the student can go beyond what you're saying you require in this course.

And then, of course, we also set up our Web site so that we can be in contact, anybody could be in contact with us, and we're working on a which in which people could send their X-rays in by computers and have them analyzed and immediately reported.

Charnley: When you came to Michigan State, did you anticipate you'd be here your entire career?

Keller: No. I had no idea that I would be sitting here as I am today, after having spent my entire career here at Michigan State University. I had a lot of colleagues that left and thought the grass was greener someplace else, got an offer that was for a little bit more. I fought down that urge and have never regretted it. I always felt that Michigan State treated me very fairly, rewarded me for what I did. As long as I continued to have some new ideas and try to develop things, that the rewards were here.

Charnley: You mentioned some of the things that you found, talking with Dr. Hannah, forward-looking, instructional technology. You have alluded to some of those. Are there any other things that just maybe told you this was the right place for you?

Keller: One incident that me think about what I was doing was, shortly after I got back into the clinics here after coming back the air force, I think it was about a year later, one of the guys in the department was denied tenure and was immediately let go, because in those days, you didn't have annual reviews and you didn't have much leading up to the time when you had to make the decision. You make the decision now or it's too late to do it. And an administrator bit the bullet and said, "I think the writing is on the wall that this person is not going to go any farther. There's no new ideas coming out of him," and tenure was denied.

I hadn't even thought of tenure up until that time, you know, but that's the kind of thing that makes you think, because this was a person that I knew well, and I knew him well enough that, when I sat down and thought about it, I realized that the administrator was right. This was the right decision to be made for this department if we're really going to go someplace. And that

made me sit back and think about myself and where I was going and what was I contributing and how was I going to get myself in position to be tenured.

But I didn't think about it long. I never plotted a program to say, if I do this, they'll have to give me tenure. I just realized at that time that, hey, what they're saying is, we want you to be looking at new things, new way. We're looking at quality, and we've got to have some hint that you're doing it. And I think that was kind a driving force me, to say, yeah, I do want to be successful and I do have a competitive nature. I think that's the last time I ever thought about tenure and what you have to do to get it, but that was a very interesting learning experience. And then that boded well when I became an administrator, could look back there and say, "Okay, now, you've got to make some hard decisions."

Charnley: What do you see now, in reflecting on your experience here at the School of Veterinary Medicine, 150th anniversary of the university coming up, where do you see the future of the College of Veterinary Medicine here at Michigan State?

Keller: We are in a position, because of these buildings that we've talked about and because of our current facilities. Our facilities now, the college facilities for both the research, we don't have all the space we want for research. However, the new Science Building is going to give us that space, and that space, plus the space in the Food Safety and Tox Center and the containment facility of the farm and the new facility that we have, and the fact that we're all computerized, we are really—and we have a forward-looking dean, with national experience. We are going to be in the forefront of veterinary medicine's contributions to the state, one; the country, two;

internationally, three. Looking at it and worrying about these changes in animal production, environmental issues, waste management, global food and fiber systems.

This is a major concern, and there are lots of people involved now in looking at the global food problems and the fiber systems and how are we going to feed the world and how are we going to make sure that this food and that the animals producing some of the food are, in fact, free of disease? So that food safety and security is a major issue, and we're in a position to make sure that, indeed, we are recognized as a research and extension unit that's developing information and getting information out.

We have a great staff from the standpoint of looking at all kinds of new techniques for solving the health problems of people's pets, and pets, we have to include the horse. A lot of those are now pets. But the whole horse industry is interesting, and we have developed an outstanding horse center. We've got the McPhails, a family in Michigan who have been into dressage horses. These are horses mainly for Olympic competition, international competition, made a major commitment, and we have built the McPhail Equine Performance Center. And we've hired the best veterinarian we could find in the world, Hillary Clayton, to run that, which she's doing, and we already have international knowledge and recognition for that. So that's going to be a continuation.

Thinking on that, one thing I failed to mention when we talked about the curriculum and changes as we went off, because we have the situation where we had an ambulatory clinic for years, where we taught students. We had vehicles that went out to farms and made calls, just like the large animal practitioner did years ago. There came a time when those animals are farther and farther away, and more veterinarians out there to take care of them, and the practice changing from the standpoint of numbers of animals and where they were. So we realized we had to do

something, and what we established with the new curriculum, we established these rotations that they could take. Well, part of those rotations have to do with clinical practice, large animal clinical practice.

We have over seventy-five of our practitioners in the state that are adjunct faculty, and we put a computer out there so that they could all be on line with us, and we gave them a software package so that they could be there. And part of that was, we knew the students, when they went out there to those practices, would want to be on the computers, and they would stimulate the old practitioner into using that computer, which they have done. So we no longer have an ambulatory clinic running out of our hospital.

These students, on their rotations, rotate out to these practices for two weeks, and they can rotate for another two weeks, and those practitioners are brought into the clinic twice a year so that they can discuss what they're doing and what they're teaching, plus their own computers so that there's interchange between the groups. And that solved a major problem for us, and it's been very successful and it has brought a lot of our practitioners into close association with the college. We do recognize them as adjunct faculty.

Charnley: Are there any colleagues that you'd like to mention, maybe that you hadn't mentioned, either staffers or--

Keller: Fred Derksen is the man who developed this program for the large animals, and Fred has done a great job in running that small animal department and establishing this training program outside of the college. I'll tell you, there's so many I'd have to go down through the whole list of faculty. I have mentioned some of the older ones that were, to me, very outstanding. We have

collected a whole group of outstanding people, and I would not want to leave anybody out by trying to list for you.

Charnley: And be here a long time, too.

I want to thank you on behalf of the project, and I appreciate the time you've spent and also your insight. Thank you.

Keller: Thank you. It's been pleasurable.

[End of interview]

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