3-27-1984

Robert Stuhlman interview (1) conducted on March 27 1984 about the Boonshoft School of Medicine at Wright State University

Robert Stuhlman

James St. Peter

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My name is James St. Peter and this is an interview with Dr. Robert A. Stuhlman, director of animal laboratory resources and director of interdisciplinary teaching laboratory at Wright State University School of Medicine. The date is March 27th, the time is 4:30 PM, and Dr. Stuhlman and I are in room 013B in the Television Center at Wright State.

Dr. Stuhlman would you describe what exactly the two programs that you were the director of do.

The laboratory animal resources program which really is my primary function is responsible for all aspects of organization, care, management, procurement etc. as it relates to the use of animals in any way, shape, or form, on-campus. Whether it be teaching research testing applied research basic research whatever all its ramifications relative to federal law state law the community and whatnot and the requirements of the various funding agencies who are always very concerned about how animals are utilized and the care they receive. The interdisciplinary teaching program was originally strictly a school of medicine function and was somewhat different than the multidisciplinary teaching lab concept in that the academic program was to involve at any one time multiple disciplines that is basic science research with emergency medicine etc. and the major function is to support the medical student in his laboratory experiences teaching experiences in whatever fashion it may be ranging from physiology pharmacology microbiology pathology etc. Everything except anatomy which is of itself its own entity and essentially that's what the two programs are. Now teaching labs have expanded significantly to include the lay community, the university community, as well as the clinical community, from the standpoint of things such as CPR, ACLS, ATLS, residency, biomed, PhD program. Although the medical students are still the primary users and take top priority.

Tell me a little about your background before you came to Wright State

Well I was the assistant director of a similar program at the University of Missouri Columbia I graduated from high school and 57 and went to the military although I had intended at that time still become a veterinarian. And after completing the military hitch I went to the University of Cincinnati and Ohio State University and got my degree in a
veterinary medicine became interested in laboratory animal medicine as a specialty field, entered a graduate program at the Columbia Missouri and received an M.S. in laboratory animal medicine. There is no terminal PhD program in laboratory animal medicine anywhere in the United States the Masters is the highest in that area and as such is a terminal degree. Graduated from Missouri's program in 71 and became the assistant director of that program as well as holding a position at the VA facility there. Dr. Beljan had sent notification out to who I assumed to all of the veterinary medical schools seeking the director of the program here that was newly developing. The laboratory animal medical programs, are not in most instances, associated with infection, or in schools but with rather medical schools and in that sense the notification came around to the medical school at that time I was looking for employment elsewhere because I wanted to be a director as opposed to assistant director. I contacted Dr. Beljan came for interview was asked to come back offered, the position, and took it.

JSP Who was your interview team?

RS Well Dr. Beljan of course for one, Dr. Spanier I spoke with Dr. Fritz, Dr. Crampton, Brian Hutchings, Brian Krueger. Of course at that time Dr. Hutchings was the chairman of science and engineering board the Dean rather a science and engineering board. I'm trying to remember who else - actually anyone who had animals which at that time were very few. The only animals that were on campus at that time were few rather a few cats, and I mean very few, like two cats maybe four, a few guinea pigs, a few mice, some opossums, most of the work was that of Dr. Fritz and in fact he was in charge of the animal facilities at that time which were located in Oelman Hall in about three rooms under the staircase behind the boiler and what not. The typical - they were well kept, but typical dungeon type –

JSP What space was available?

RS Right. What can we clear out in order to put animals in type of situation.

JSP When did you come to Wright State?

RS In 1975, April of 1975 I officially started.

JSP You said there were only a few animals on campus. What departments that were doing animal research then?

RS Science and Engineering, biological- at that time I'm not sure whether it was Biological Sciences or Biological Chemistry, or just biology, and psychology; psychology of course always used the rats for the behavioral type studies, mazes, nutritional studies, teaching studies etc. Dr. Fritz was doing a fair amount of work with marsupials, both South American as well as our own opossum. And I really don't know who else was using them at the time because I never met- well Dr. Crampton, I’m sorry, had the cats, but who had the couple of rabbits, a couple guinea pigs, I'm not sure but they might've
been somebody's pets at the time. There was really no work being done with them so we very quickly eliminated those which were excess.

**JSP**

So you were brought in in charge of all laboratory animals at Wright State not just School of Medicine?

**RS**

Yes because the plan was, the concept was, that we should all be centralized because of the various laws, federal laws because we were anticipating to expand significantly although we were not as large as now, we are much larger than it was then.

**JSP**

How would you describe the state of development when you came to Wright State School of Medicine?

**RS**

Well there was one building under way. They were working on phase 2 of the Biological Sciences Building, Med Sci hadn't started, we were housed down at the Kettering Center on Monument Avenue. Rarely came to campus because there wasn't anything out here, quite honestly. Very early stages of development, although it was already in a well along. The space that we originally - that we now occupy that we originally occupied as new space is really the space between Bio Sci Phase 1 and Phase 2. It was a confined space already locked in, there was no design there. But they had attempted to begin a floor design and had already put in roughed-in plumbing etc. The concept which had been developed was one of the clean dirty quarter system, which was in vogue at that time, in which everything flows in one direction. You go into one set of doors into a room you do your thing for a while and the dirty quarters you come around to your sanitation area and sanitize back into the clean area etc. However with only 6400 Gross Sq. feet what it amounted to when you got everything done was about eight or nine animal rooms a lot of quarters and the design of the buildings as we are a locked in the space with such that you couldn't really follow a true clean dirty quarter system. So the first thing I did was redesign all the floorplans and got everything in that that was there before but we had 15 animal rooms instead of 8. They’re somewhat larger and we had to move a lot of roughed in plumbing, the things that always flow in the right direction all the time, the fluid water tends to when we wash whatever goes around the drains they do that even whenever there’d designed properly or from the word go. Really the program was fairly well conceived recognition that there was a need the people who were involved in the early planning stages there was Dr. Beljan, Dr. Spanier, Dr. Zappala was anatomy, Dr. Coleman, Dr. Fritz, and Dr. Funkhouser who was the pathology chairman, initially of the steering committee. At least we were the only people here- oh, and Dr. Suriano in admissions who was essentially at the same time being recruited that I was. There were very few of us to start with. Fortunately, I got in on the ground floor. I think it's a tribute to the planners. They looked at everything, and they didn’t just look at the academic program and then say, “Well, what do we need?” They really went through a complete program, a layout, and tried to hit all the areas of support areas at the same time.

**JSP**

Do you feel you were brought in at the right time to the program?
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<th>RS</th>
<th>Well I would've liked to have been brought in even sooner.</th>
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<td>JSP</td>
<td>Why?</td>
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<td>RS</td>
<td>Well I think I could've done a better job with the space available, but I could've been here much earlier because I couldn’t have been here earlier than the Dean, if that were the case.</td>
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<td>JSP</td>
<td>What were some of your immediate priorities when you got here, besides redesigning the floor plan?</td>
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<td>RS</td>
<td>Posted contact all of the affiliates because even at that time of course the concept was that there would be two years of basic sciences and two years of clinical. And the clinical would be supplied by the community hospitals at that time we had eight affiliate hospitals. The VA had a very small animal facility of course the VA was a major and integral part of the development of the School of Medicine, they also had plans for some of the hospitals, they had “dog labs” and they too had plans. The whole idea initially was to get everybody's ideas and see how it fit the program. What kind of space support and whatnot we would need in addition when I came on during the interview with the first interview, Dr. Beljan asked what my feelings were in relation to the interdisciplinary teaching laboratories has been a part of my responsibilities even though I'm not an M.D. and it is medical student oriented. The reason being that in many of the colleges many of the schools of medicine would have their laboratories are under and a department. In Columbia, Missouri it was the pathology department, they had a vested interest and they used it as a club politics etc. And Dr. Beljan was trying to preclude that, apparently. From California, they had the same situation. This was to be for the medical students foremost, and not for an academic department. I said at the time I knew absolutely nothing about it and I said that I could learn more about them and was willing to give it a shot anyway. When the position was offered, it was with that as a part of my responsibilities, so one of the things I did have to do was to go around and find out more about teaching labs. I was familiar with the one in Missouri. It was not of a concept or design that we could use here. I went to Ohio State where they put a lot of money into their program, a lot of equipment was purchased, a lot of space with dedicated for laboratories, and before day one day they switched to a three-year program and eliminated all laboratory experiences, and it literally sits up there. I went out to Chicago and Champaign-University of Illinois, looked at their program, looked at their labs, got some good ideas from them, concepts looked like we had to have a fume hood in every lab and really you almost never use a fume hood.</td>
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<td>JSP</td>
<td>What's a fume hood?</td>
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<td>RS</td>
<td>It's a device which has a directional airflow for work manipulating dangerous things whether it be infectious agents or carcinogens, volatile substances, or whatever. It had an exhaust hood separate from the any kind of circulation that so you don't re-circulate anything back into your error handling system that would go to the students or classrooms or whatever. It was about 150 air changes an hour. They varied with</td>
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exactly what depending upon you're going to use in them you could put scrubbers and you could actually pipe the exhaust into an incinerator and burn it or whatever. They're very nice but for the most part you just don't use them anymore at least not in a medical situation. And one per six labs is more than enough. These kinds of things we looked into and redesigned it, and again the concept was that we provided every aspect of support to the medical student laboratory teaching experience. And we developed the microbiology section with your standard plating out organisms and identification and gram stains etc. Virus production and incubating eggs and whatever up to in the most extensive is the surgical techniques section, involves the surgical procedures on animals as a teaching model for the students so they know how to do it before they -

| JSP | This was, like you said, an unusual concept for a medical school, was it not? |
| RS  | Yes it was. But again a lot of thought went into this, a lot of people’s input went into it and with our anticipated collaboration with eight different hospitals, the VA, clinical faculty as well as academic faculty, the dual appointments of some of the faculty and the Department of Science and Engineering as well as the School of Medicine, the whole concept was not only vertical integration but horizontal integration. And real interdisciplinary teaching. |
| JSP | How many matrix faculty did you use? |
| RS  | I don't know what they finally came up with. There were did you say matrix faculty? All of the basic science faculty have dual appointments both in the Department of Science and Engineering and of the School of Medicine and there are some in continuing education, continuing medical education, and the biomed PhD program there are a fair number of dually appointed faculty. |
| JSP | How did the faculty feel when the final concept was put into effect? That you would have all of the interdisciplinary teaching responsibilities? |
| RS  | I had nothing but support from the faculty, okay? No problems with anybody really. |
| JSP | How did- |
| RS  | Because we had a lot of support from the administration, too. I would go to every faculty member, every department chairman, we would discuss their anticipated needs, what their anticipated usage would be. They were also at the time trying to coordinate contact hours this the original concept was 20 contact hours a week which didn't really leave a lot they weren't going to have times to worry about labs too. That is not from the support standpoint to provide the academic support to the mechanical support time support space support basically didn't have the time so they were more than willing to have someone else do the legwork. |
| JSP | So you brought in your own technicians to do the actual instruction? |
RS Yes well the department provides their own instructors be it a PhD, M.D. whatever but we supply all of the backup support all of the instrumentation and all of the set up of the instruments. All of the taking down operation of the animals preparation of plates preparation of the mannequins etc. So all they do is come in and hook up and do their thing and we make sure everything is there for them to do it so that they can most effectively use their time and get the most out of their contact hours.

JSP When you first - you said when you first came here, the major offices of the school of medicine were down in the Kettering Center, did you have an office here and also one down there? Did you do a lot of commuting?

RS I did a lot of commuting. There was not really an office here because there was no space here. There was a desk in a room in Oelman Hall that also had the animals that there was actually very little going on as I said. Most of my work and time was spent at well initially was initially spent most of the time at the hospitals from hospital to hospital and talking to everybody in finding out what their support needs were what kind of animal work they anticipated doing what they anticipated teaching. They in turn were trying to work out their curriculum I was trying to present to them what we thought we had and how we could support them what is it they needed what is it they see us doing and in general working back and forth. At the same time I was trying to learn what teaching labs really did in support of students and what the best type of lab would be. There were already some labs designed for the phase 2 building an additional one anticipated for the Med science building. We stayed with the initial concept of the space arrangement but we changed service outlets and things like that to make the rooms more flexible more easily switched from one discipline to another or to handle multiple disciplines at simultaneously and there's a lot of work involved in those kind of things. A lot of time spent just getting facts gathering data going to floorplans going to architects going to engineers who don't understand English anyway don't understand what you are telling them when you write down.

JSP How did they - how did the hospitals respond to you going to them?

RS At the time everybody was very, very, to coin a phrase, gung ho and I never met anyone who wasn't 100% for the development of the school and willing to do anything within reason to help not only I'm not just talking about the missions or the potential faculty members at the hospital but administrators as well. I met with everybody everybody had their own ideas everyone was searching for information what was going to be available how could they fit this in. They were as eager to learn from me as I was from them because they really didn't have any concept of what we were going to do what we're going to provide what kind of services would be available what could they count on. So they didn't know how to build their programs because they weren't sure what they were going to have available to them. It has worked in both areas it's very difficult for me to separate the two because I worked upwards of 75 and I handled them both the same. It's what he needed how can we get it done and that's what we have done from day one and that's that the support we've had for the administration to. If it's an approved program and approved protocol justified than we do it if the system won't
allow us to do it at present the one we need to do since it's new in the system we never had to deal with this before how do we then deal with the system and get all of these things plugged in?

JSP  And how did Dr. Beljan as Dean oversee your functions did he give a lot of leeway

RS  I had virtually total freedom. I had to go and of course anything I was doing I had to report to him so he was aware of it. I did nothing behind anybody's back or etc. and we had weekly meetings initially our whole group you know the whole school the five of us or whatever it was. And we would go over all of the details we would go over how things were progressing where we were at in identifying faculty where we were at in identifying program needs equipment needs space needs what snags we ran into and again there were a lot of snags because no place was ready for us. Everybody was willing to work with us but nobody really knew what we needed or how we were going to fit in. And there were a lot of snags in the system simply because the system was never really set up for it and we had to work all of these out. There were weekly meetings and we would report what we had developed and what had been developed and who wanted what. And nobody was really grandiose nobody was really out at the time to try to get more than anybody else everybody put down what it was they needed how they wanted it what they would like if it were an ideal situation we would discuss what we could do and what we can work on how we might do this etc. everybody worked very very very closely together. And everybody knew what everybody else was doing. I knew when a new faculty member was coming in I was involved in searches for committees people and for steering committees for new faculty members, for new staff members at the time. I spent you asked me to what I was working on initially aside from these things was generating a substantial grant to go to NIH for support for equipment. We were fortunate to get one of the largest ever given at one time in support of a developing program. And it was in excess of $200,000

JSP  How much of your budget was funded through the VA?

RS  Well initially all of the money came from the VA because we were it was really just me. There were her there was one animal technician and on occasion some students because there weren't that many animals. So in that respect it was really just my salary initially. The entire operation at that time was science and engineering and they were already slotted they already had the people in. They had the food coming in etc., there was absolutely nothing the school of medicine was doing they didn't have one animal in 75. The majority of the animals were in psychology and the Department of science and engineering, mice and rats and behavioral studies and it stayed that way for quite some time.

JSP  When did you bring your first animals in?

RS  For whom? For the school of medicine? 77 it would have to be

JSP  What kind of animals?
No. I'm sorry that's not true let me go back again. In 76 we picked up, Cox Heart became part of the school of medicine. And Cox Hart had an animal. It again was a bit of a dungeon needed extensive renovation and improvement bring it up to standard but again all of the support was there. We moved on - it took some time. It's not ideal but it's certainly very acceptable now. So in reality the first animals would have been an ongoing program as part of Cox already. We did get some animals to in at the VA which were for the school of medicine this would actually be in 75 that we got some in at the VA. A minimal number, one or two dogs or something like that a few guinea pigs or something of that nature. 76 then we got the ones that came to Cox and those essentially were almost totally dogs and they were strictly from dealers the first animals here on campus that were really truly school of medicine would've been in March of 77 when we got the new building.

What kind of animals do you bring into the school of medicine?

Predominately we had as with most other laboratory animals facilities rats and mice rodents but we also utilized some rabbits, hamsters, we used rarely guinea pigs, although many places use guinea pigs, dogs, cats, and we used a few sheep, we have goats, we used pigs, and a few primates, opossums, tree shrews, any animal can be and frequently is an laboratory animal.

Are they selected because of the similarities between body functions and organs?

Usually yes. They have certain characteristics which are extrapolate-able to man. They are not identical to man but extrapolate-able. Animals that are used traditionally were used because of size or availability. Anymore because of the tremendous amounts of data that we have accumulated on certain species such as the dog. It would almost be cost prohibitive to try to develop another model we simply don't have the information that we need to be able to then extrapolate data to man. Rats and mice are used because they are relatively inexpensive to obtain they are raised commercially to be very very specific that we can reproduce results much better. You can do longevity studies long-term studies in a relatively short time span after studying then you have to look at 60 years how many times can you study any given thing generation after generation or whatever. And although the animals are not identical to man because of our broad database and the way we can extrapolate what we've seen for other things the data is of use is nonetheless very useful. I doubt that there's anybody who would want to use an animal if we could use tissue cultures totally and be reliable or clones or whatever that we might be able to do although we're getting into that more and more because it is less expensive it's more reproducible.

Computer-generated models and that kind of thing?

Computer-generated models, cell cultures, organ cultures, (hbralmas?) . All kinds of things really.
You mentioned to me earlier, before the interview in your office, that the animals you are given care of are taken very good care of, why is that? Are there certain standards of care for animals?

Oh yes. Of course we have the animal welfare act now which became effective in 65-66. And this was a push by the public to improve the conditions. We've always wanted to do research and learn more. It’s our nature to be inquisitive why we function the way we do, what we do to improve the way we function, to improve treatment of disease, to diagnose it earlier to reduce the occurrence etc. As well as just wanting to know why these things work that way how does a cell work you know that's just her nature. On top of the animal welfare act many of the granting agencies of which the national institution of health is probably the biggest have standards that are even higher. Because we know several things. One we know that the better care the animals are given the better the results that we get the more reproducible those results, the more valid the results. Time and money went into this and also in some instances of course the animal. Many many many studies have no effect as far as the animal's health or well-being are concerned we are not studying it aspects where we are making them sick or whatever that rather behavioral things or the effects of certain nutrients or drugs how they interact and counteract them is really no effect on the health status of the animal but if we don't maintain the animal under controlled conditions because of the different influences than the results are worthless, nobody can reproduce them, they don't mean anything. All we've done is waste time and money and animals and nobody really wants to do that. The better care we take of the animals the better the results that we get. Also there is a very aware community and although most of the people are for research and realize its value they nonetheless wanted under good conditions they want the animals properly taking care of it will ensure they're fed properly cared for looked after etc. and rightfully so because it's their money in reality. And most of us are humane individuals. Even when we're getting good results if it involves stress or pain if it hurts them it hurts us to a society as individuals.

Let's go back to the NIH grant when did you first perceive that you needed a grant for this from NIH?

Day one.

Why was that?

Because the monies were not available to appropriately start from scratch a lab. The state was putting in significant amounts of money for the buildings etc. we were getting we were getting very good support from the VA of course, be it money was VA other than salaries etc. And any equipment or anything else has to stay at the VA, at the federal thing and that's the way it is and I don't have a problem with that. But we do not have the funds because we were pretty new at the time and what it was going to cost it really wasn't we weren't really sure what was needed what was known because of background was that we needed a good animal facility because we knew that we would use animals for teaching and that we would use animals for research that is a
given but as far as the actual operation of what was involved in setting it up nobody who was on board at the time really had any idea they were going to the base and trying to get some information and etc. but the contacts they are and the concepts there were entirely different as to what was needed and who would do what and what you can get and where funds were available. So nobody who is here actually knew at the time what was needed. And when you start talking about cage washers and autoclaves and incinerators and stainless steel everything the funds rise quickly and there just wasn't the state accounting system didn't allow for that and they were already too far into it to go back for at least another two years because it was a brand-new system before we could get even the possibility of getting any money than it would've been much too late when you start talking about cage washers and autoclaves and incinerators and stainless steel everything the funds rise quickly and there just wasn't the state accounting system didn't allow for that and they were already too far into it to go back for at least another two years because it was a brand-new system before we could get even the possibility of getting any money than it would've been much too late.

**JSP** When did you initiate paperwork for the grant?

**RS** I really can't you exactly when as I say the first things I worked on were the groundwork for building because it was already underway and that required immediate attention because they were already putting up walls and we had to get where the walls were going to go first before they started putting all the stuff in place. I guess May or June of 75.

**JSP** How much should you request?

**RS** A little over $300,000.

**JSP** Did you get everything you requested?

**RS** No no but I had gotten one of the biggest ones they had ever up to that time they had ever given. It was over 200,000 the reason being really that we didn't get it all it was simply that we didn't quite get the space we were supposed to. You couldn't put five rooms of cages into four rooms. So had I had a better handle at the time on really what the space was a shakedown to as opposed what my ideal was a cousin once they start taking out mechanical space and what not. Pipe chases and all that, it changes things and so we lost a few rooms I had more rooms even when I ended up with but we lost it to mechanical things mechanical chases and generator rooms and whatnot so I took the maximum number of rooms and every square foot inch we could conceive how much we could squeeze in there in the form of equipment and requested that equipment I also requested additional people and NIH felt that was inappropriate they would find my supervisor Mike Key person, but that caretakers and so forth should be paid out of state funds and recouped and paid for out of a per diem charge and so they cut out several people and the funding for several pieces of equipment simply because we actually didn't end up with that amount of space but they can. They site visited us very carefully spoke in great length with Dr. Tager, Dr. Beljan much more so than what I had been led to understand a word. And of course both gentlemen were superb in what they knew and what they knew was going on and what they were projecting is being developed. Talk to every investigator which at that time was only five or six but nonetheless talked to every one of them, looked at the floor plans up to the reality of what was going in and were very favorably impressed and were favorable to the recommendations. They
simply eliminated what there was for and then the policy being that they really don't
find for people to start a program so in essence they did give me everything that I did
ask for that I could justify. And we were able to do very well as a result

JSP Let's talk about the first staff that you brought in. Who was the immediate priority for
you to get and when you they here as far as your staff goes?

RS Well for a while I was the only one, other than the animal caretaker and the students
that were really under the science and engineering. They were responsible relative to
anything that would involve animals, spacing, getting the animals, and ordering food,
bedding etc. But they were really science and engineering. I was supported by Dean's
staff as far as administration typing etc. so again I'm didn't really need a secretary or
anything else initially because it was all paperwork. Was all laying out plans, was all
projecting timetables it was all paperwork the first year really we went from Kettering
to the VA had offices out there and again it was the Dean's staff supporting because
there was an animal caretaker out there also but again you must realize it was still a
very small animal area out there only two rooms. We picked up or merge with Cox and
76 was it really 76 or was it 75 that we merge with Cox?

JSP I think it was 75.

RS I think it was because it was right after I got here if I'm not mistaken. As opposed to the
next year so I was involved with that too, 76 was when Fells merged and yet Cox
already had people caretakers and technicians and whatnot. They were their budget and
their people but again the were responsible to me only were related to animals

JSP Did you assume supervisory position with those merged institutes?

RS Yes as it relates to animals.

JSP What about the VA?

RS VA essentially the same way I was immediately the veterinarian medical officer
consultant to research service, and in essence had full responsibilities, no authority just
full responsibility.

JSP Do you still do that?

RS Yes we have a very good working relationship with the VA and I respect them.

JSP Where did you-

RS Do within their system we have a great deal of cooperation. My actual the first person
that I identified and brought on was really would've been a secretary eventually when
we got out the campus.
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<th>JSP</th>
<th>That was when you were having the administrative secretary do paperwork of your own</th>
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<td>RS</td>
<td>Well that's when I was separated from the Dean's staff. And the Dean's staff had grown too by this time. There were many many faculty members and we were no longer meeting on weekly basis just a little tightknit group but were fragmented and met as different segments and different groups. Although again I still have access to all the paperwork because we weren't doing anything other than still planning and developing we hadn't implemented that much yet in 76. Where we picked up other institutions that had ongoing programs, we simply maintained their program and upgraded either quality of service types of service acquisition of animals began to final and some of the better equipment some of the places had old outdated things. You have began working them into our system and we began working into their system so I had people working for me though I wasn't budgeted for anybody actually before we became operational in the true sense of the word.</td>
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<td>-here at Wright State?</td>
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| RS  | Yes we actually got into more facilities if you will well we were actually operating the program trying to expand it, trying to do a little bit of stuff before we got into new facilities. Where that's why we were still in Oelman. I hired a supervisor at the Air Force actually, who had a great deal of time in the Air Force and worked with lab animals was and is extremely good and that's Phil Conway. I hired him in 76 and he became responsible for what was going on in Oelman Hall etc. he and I discussed virtually every aspect of the development of the facilities because he had a great deal of experience with it over the years he had some very good ideas not only on what equipment to buy and how to use it and whatnot, but some of the operational policies how we wanted to deal with investigators, students, researchers, technicians. You know how to make the whole program work to best advantage of the investigator or the utilizer, whether it be for research or teaching. Secretary came on about the same time, who are strictly lab animal and I began to have a budget for them, though again the budget was essentially handled through the Dean's office, just an extension of the Dean's office at that time. The teaching labs, and I keep talking mostly about lab animals, but the teaching labs were also developing at this time we were beginning to identify people for the technician slots and the support slots but essentially the hired technology technologists as opposed to the lower levels because is still a planning we weren’t ready to support any students. We didn't have any students yet so we were identifying equipment needs and you know what support programs what they intended to do with the current curriculum therefore what equipment we needed in order for to support it the surgical concept for teaching the students was astronomical we have to set up essentially 48 complete surgical setups with anticipation and we were dealing with half the students at a time that 76 class size 48 students at any one time. It's 48 sets of surgical setups that's a lot of setups, a lot of instrumentation a lot of materials. And again we've been very fortunate of the people involved in this were not steeped in the
old tradition per se but were really looking to have input into the development of a very progressive medical school using modern techniques modern equipment state-of-the-art not stuff that we've got these microscopes. I went to that school on the microscopes were terrible for histology and stuff. They look like some of the ones that you see in the archives. You couldn't focus you can hardly see anything. The concept was to really make it meaningful and to do so you had to get state-of-the-art equipment stuff that when they went to the hospital they knew what they were talking about not all archaic things that simply weren't up-to-date anymore where they had to relearn once they got there.

How many staff do you have now?

In the teaching labs, I have to stop and think each time, I have an assistant director 2 technologists, a tech II, two students. Now that waxes and wanes in reality and of course the secretary clerical specialist. At one time it was eight or 10 people just in the teaching labs there was a lot of faculty. The individual who was my assistant director at that time was also a faculty member was into other things so his time got spread all around a lot. He really wasn't concentrating on the lab animal aspect so we were also doing a lot more running at the time, VA here, to wherever. A lot of equipment moving etc. and in the end had more people been the recent five years for years actually. As we honed in, as we have refined the curriculum, we've eliminated a lot of fat that was in the curriculum. We have been able to pare down our people and as our people have learned what they have to do, because everything was brand-new and it's always harder to learn what you're doing when you're in the process of learning what you're doing as to when you become very good at it and so we have much less wasted movement now. At one time we always had three students now we only have one most of the time and that's all we need. The assistant director also had an assistant because he was doing pharmacology and curricular affairs and he wasn't really doing anything other than the IDTL work. The individual I have now is a very capable young lady and she really has honed in and refined all of our techniques and we are better defined we are not changing them every time we turn around. The first few years no program was ever duplicated because it was done once it didn't quite work out the way they wanted so we change something until we got the program that flowed properly and smoothly and got across to the students what was needed so we made changes the first few years like crazy and I met everybody had to relearn again had to redo things etc. so I actually have to count on my fingers Lenny and Jackie Mary Norma Sunny a new house that is a Cindy but Cindy just left and I have a replacement so that's six full-time people in the teaching lab and one student. At one time we had eight full-time people and three students so were doing much better in that respect and actually we are doing more surprisingly with fewer people because the ACLS and the CPR, the trauma labs, were not part of what we started out doing we strictly started out doing physiology pharmacology surgery etc. and so these other programs came along and we teach nursing CPR. Teach CPR for all the hospitals the paramedics we do the ATLS the advanced trauma life support for the residence. And all of this is on top of what we originally started doing and we were keeping more people busy, but it was basically because nobody really knew what they were doing from day one to day two because
everything changed. Now in the lab animal area I currently have Phil and Linda and Kirsty, Paul, and Sandy and that's five full-time - one individual who is a part-time, who was originally full-time but who is only 53% now, he's taking formal classes. And right now we have three students, we are very busy in the LAR section right now. Normally we have one student. The laboratory animal resource area works seven days a week because the animals have to be fed and watered seven days a week. The larger animals have had their cages cleaned seven days a week. So we generally cover that with students because there is very little teaching or research per se that we are actively supporting on the weekends it's just the daily care and maintenance, rather than go with full-time people and try to set up staggered schedules go with an additional full-time person and then you have to keep offsetting days on days off days and whatnot the students and we want to give the students an opportunity and we know we've got plenty of students that are looking for work and it meets our needs and they basically have Saturday and Sunday when they can do their work rather than during the week when they're attending classes. So unlike many of the student positions where work’s during normal duty hours, they can actually get hours in on weekends, which helps them and helps us and makes it much better for all of us. And we’ve been very busy the last couple of months until your keeping three students we are trying to get the facilities in better shape than we have because of having excess work in deficient numbers of people we have gotten some sanitation problems some dirt buildup and stuff. Which is just unacceptable because it can really cause problems with disease conditions so were getting everything back up and of course were getting ready to move to now if we expand were when we expand into a new program than it will to depend upon what the faculty wants because really I'm support, we do what they need and they are the ones that actually developed the need or generate the funds or whatever if they continue to expand their needs then we will of course continue to expand our support. We have several programs going right now that if they really gel will be at max capacity in these new facilities in six months .

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<th>What are some of the new programs?</th>
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<td>RS</td>
<td>They are cardiovascular work. We have a very extensive program developing if it works, its new devices, and it is also teaching because cardiovascular work is a team. Everybody has to know what they're doing and we see it with the work were doing if the people are off for a week or so because of other commitments or patient loads or whatever we’re going to have problems the first time back because you got to have that constant repetition as a team for the program to go properly</td>
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<th>How much of the lab animal resources are allocated directly for research and how much are for teaching?</th>
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<td>RS</td>
<td>That's very difficult to put a handle on simply because much of the research is still teaching. Because the investigator’s searching for new data unless he's teaching. Research technician, students whatever the research protocol, research behavior of the data is being turned into teaching information as soon as it's obtained. It varies. Teaching is generally around 25% to 40%. And vice versa research is the other 60%.</td>
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When you get into things like mechanical devices and that they're really not teaching or research but rather testing. Where do you draw the line? It's not black or white shades of gray etc. but by and large we run anywhere from, I'd say I averaged it from 77% we've probably got 30% to 35% teaching and 60 to 65% research utilization.

The school of medicine was put together in record time, do you think that speed of development hindered your development of the lab animal resource and the -

Oh I was often chomping at the bit because it wasn't going fast enough. And it was strictly mechanical things, you simply can't get things built you can't get the paperwork run through. We could sit down and draw up the set of plans in a week and have everything and it takes three months to get through the paper mill. And it has to go through there's time constraints they want everything now they want to operate now and it takes you so much time to get all of these things into motion. No it didn't hinder me at all. In many instances it would have been better if it had gone faster because we had people who were going to do things or would have done things if we had had the space and support available at the time. And they may have gone and done many more things because this type of stuff is snowballing if you will. You do some work you get some publications get some quality information out that quality facilities, it begins to attract more people, they in turn attract more money to do more work, which attracts more people, until the step-by-step. Some of the people it unfortunately left us because we did not get their support needs met and while they were waiting something else came along had we been supporting them what they wanted to do, they probably would not have been as quick to leave and so the program would have moved faster and further, but still it was record time there's no doubt about that.

Well thank you very much for taking the time to talk to me today and the time has definitely flown here.

When I get on my soapbox and you can't stop me.

[laughter]

[end of recording]