

OREGON HEALTH SCIENCES UNIVERSITY HISTORY PROGRAM

ORAL HISTORY PROJECT

INTERVIEW

WITH

Reid S. (Sam) Connell, Ph.D.

Interview conducted July 8, 1999

by

Joan Ash

SUMMARY

In this interview, University of Oregon Medical School alumnus and faculty member Dr. Reid “Sam” Connell, Ph.D., talks about his early associations with Portland physicians, his training in anatomy, and his long career at the University.

To begin, Connell describes his early years in Portland and shares anecdotes about his neighbors, many of whom were physicians and faculty members at UOMS. He details neighborhood reactions to the early abortionist Ruth Barnett. He also describes his surprise upon learning that the man he knew as “Charlie” Holman was in fact Dean of the Medical School. He talks about his experiences of wartime Portland, when soldiers patrolled the coasts and neighborhood guards made sure that blackout rules were enforced.

When he matriculated at Oregon State, Connell was originally focused on a degree in languages. He soon became much more interested in science, however, and stayed on at OSU to obtain a master’s degree in anatomy. Connell completed his doctorate at the Medical School, and was immediately appointed to the faculty as an instructor in both anatomy and neurology. He describes Dr. Roy Swank, who recruited him into the position, and his colleague Dr. Tony Pearson. He also talks at length about Dr. Hance Haney, his mentor and father-in-law.

Connell goes on to discuss several of the major developments and programs with which he was involved during his tenure as faculty member. He describes his activities as Demonstrator of Anatomy and supporter of the Oregon Donor Program. He outlines changes in the medical curriculum, noting that the hours spent on anatomy have been drastically reduced. He talks about the consolidation of the three separate schools into a university, and then the further change when the University became a public corporation.

After taking an early retirement from the faculty in 1994, Connell was tapped to oversee the administration of the allied health programs at OHSU. He talks about the various programs that are currently offered, as well as those in the development stage, and describes trends in allied health education. He discusses the history of perfusionist programs in Portland, and notes that Oregon is experiencing a shortage of these specialists.

Finally, Connell addresses the issue of women and minorities in medicine. He talks about University efforts to recruit more female and minority students into the School of Medicine, as well as into the allied health programs. He notes that qualified applicants are often accepted for admission to various University programs, but that few of them actually matriculate. He shares his insights into the problem and ideas for possible remedies.

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Interview with Reid S. (Sam) Connell, Ph.D.
Interviewed by Joan Ash
July 8, 1999
Site: Dr. Connell's office, Gaines Hall
Begin Tape 1, Side 1

ASH: It is July 8, 1999, and this is Joan Ash, interviewing Dr. Sam Connell in his office in Gaines Hall.

As I warned you, I'm going to ask you a little bit about your early childhood, where you were born and when, and a little bit about your family.

CONNELL: Thank you.

I was born in Hillsboro, Oregon, which is probably about twenty miles to the west of Portland, and lived there for about one year, and my parents moved to Portland. I was born in 1937, on June 15, and I came to Portland when the war effort started and kind of settled over in Northeast Portland, by the Grant High School area. I went to Fernwood Grade School, went to Grant High School, and had many friends in the community, among which were faculty and kids, offspring, of faculty members here at the School of Medicine.

Closest to our home and a very good classmate friend of mine was a son of Charlie Holman, who was our Dean and was Associate Dean under Dean Baird for many, many years and Dean of the School of Medicine here for a period of time in the late 1960s and early 1970s. His son, Blair, was a very good friend.

Also friends were the Osgood children. Ed Osgood was professor of hematology here at the University and, in fact, was the individual who started the Medical Technology program here at the University in about 1933. His wife was a medical technologist. He had four children, all of whom became very successful in their various areas of pursuit, one becoming a physicist and so forth. But I had lots of good experiences with Dr. Osgood, who we all thought was the "absent-minded professor." Occasionally we would go to the Hollywood Theater for a Saturday matinee. Our parents took turns picking us up after the matinee, and whenever it was Dr. Osgood's turn we always knew he'd be late and that his daughter, Beverley, would have to call him at the Medical School to remind him he was to pick us up. His car would leave his home and always head for the Medical School. A very dedicated clinician and scientist.

Also a neighbor was Dean Baird, who was Dean of the Medical School. Mike Baird was substantially older at that time, but I do remember Dean Baird lived in a very large home over on about Thirtieth and Thompson. We used to go to his house and ring his doorbell on Halloween and rattle their windows and so forth. But a very congenial, a very good neighbor.

Also at that time E. Murray Burns, who was an internist in Portland and was an

adjunct faculty in the Department of Medicine, lived very close by. So I was very aware of the Medical School, of both the clinical aspects of it and the research aspects of what was going on here on the Hill.

What was interesting to me at the time is that the Medical School and its association with the Multnomah County Hospital was really perceived as being the poor person's hospital. Providence Hospital was thought to be for the more wealthy, and Emanuel Hospital was the hospital for the community. And some of those attitudes still exist in Northeast Portland today. And, then, Kaiser Permanente Hospital came in and kind of competed with Emanuel Hospital for that community partnership for health care.

When I was in high school I was very interested in languages, but I was aware of science. One of E. Murray Burns' sons, Doug Burns, went to medical school, and I knew him and I knew of his interest in biology. He was an expert in butterflies and, in fact, has, I think, three different butterflies that he discovered that are named after him. So he kind of tweaked my—as an older person that I knew, a student, tweaked my interest in science.

So I went down to Oregon State University and started in languages, because I had been an American Field scholar to the University of Mexico during the—about 1953-54 and had developed an interest in foreign languages. I went down to Oregon State with that as a major. However, Oregon State being a science school with business, science, and engineering, I had to take a lot of science courses. And so by my senior year at Oregon State I had developed a keen interest in biology and, in fact, in zoology, and was invited to stay on as a graduate student and an instructor in teaching anatomy and embryology, which I did for two years.

At that time I decided that I would come up to the Medical School, applied to the Medical School, was accepted, and spent the first two years, starting in 1961, as a medical student. However, in the sixties, which was the golden era of research, I became very excited about the research activities that were ongoing. Lysosomes, isozymes had just been discovered; and I decided that the basic science was one that I was interested in.

I was interested in teaching the anatomical sciences and doing research, and so I converted to the Ph.D. program and graduated in 1966, at which time Roy Swank, who was the Head of the Division of Neurology at that time, offered me a position. And I had also several offers on the East Coast in departments of anatomy, including the University of Wisconsin. There was a man by the name of Harland Mossman, who was an expert in placentation, and I had a keen interest in that since I was able to describe the Indian elephant placenta from [Kiawah?] and Packy, that were born at the Portland Zoo. And I had an offer to go back and work with Harland Mossman on this, but the offer came in a week after I signed with Roy Swank in the Division of Neurology, which was probably a good thing, because Portland is certainly a very desirable area to live.

I knew, from college, a girl by the name of Marilyn Haney; and Marilyn and I were married in 1962, one year after I matriculated here at OHSU. Marilyn's father was a professor of medicine and chief of the Outpatient Clinic and had been here at the University

since 1937.

ASH: Hance Haney?

CONNELL: Hance Haney. And so I learned more about OHSU during that time.

As a faculty member in the Department of Anatomy, I had mentors in Tony Pearson, who was the original describer of the eleventh and twelfth cranial nerves, which was very impressive to me. I had an additional two mentors—one being Robert Bacon, who is a Professor Emeritus of Anatomy, a gentleman, a scholar, a Yale graduate, a Stanford professor, finally to OHSU—who really showed me standards of teaching and research that I really admired and were good role models. I also had a person named David Gunberg, who was a keen researcher and also an excellent mentor, one you could talk to that would always be helpful. He was your friend. He eventually took the position of department chair at the Dental School and was head of the Department of Anatomy there for many, many years.

But I had some excellent colleagues in development, here at the University. I taught the embryology, histology, and gross anatomy for many, many years; thoroughly enjoyed my relationship with the students.

Research activities were in conjunction with Roy Swank in Neurology, dealing with blood filters and vascular compromise during shock. And also, then, this partnership developed with the Department of Surgery, with Bill Krippaehne, who was at that time chief of Surgery here at the University, an excellent mentor and good friend; and also developed a relationship with the pediatric surgeons Jack Campbell and Marv Harrison. For many years during my tenure here at the University I was given a surgery resident each year to work in my research laboratory, so a lot of the research that we did was very clinically related and was very exciting.

So I've had a neat tenure, a neat experience here at OHSU.

ASH: Thank you for the summary, but I'm going to ask you to back up again and ask you a little more about your roots. Was your family in the medical area or the scientific area at all, your parents and siblings?

CONNELL: My roots start way back in Oregon. My great grandfather was a physician, trained at the University of London. After graduation he came to the United States and came out West, established in Oregon City, initially, to practice in the 1850s, and from there moved to the Tualatin Valley, where he settled in a little town called Glencoe, which is just a half a mile to the east of North Plains. He married a woman by the name of Bagby, and she was from the Bagby family, which was located around Molalla and Estacada, and, in fact, developed Wilhoit Springs and Bagby Hot Springs.

My great grandmother Bagby—she came in, and her name was Sanford—was the first pharmacist in the Tualatin Valley, and, in fact, she was the first woman vice president of the Oregon Pharmaceutical Association in 1891. So I have that; and, then, relatives, I had an

uncle who was an eye, ear, nose, throat person, one of the early practitioners who combined both otolaryngology with ophthalmology.

So those are the medical connections I have in my background. But it's the science and the inquiry that is, I think, very exciting, and I think anyone who is exposed to it would find it very difficult to move away from.

ASH: Do you have any stories you can tell about Dean Holman? You knew his sons well, and you were familiar with him in the nonacademic setting as you were growing up.

CONNELL: Yes. It was very interesting. When I went down to college, I pledged a fraternity, a great fraternity at Oregon State University, which was Sigma Phi Epsilon, and finally, after two quarters, was initiated after making grades. And the first person to congratulate me was Dr. Holman. At that time we all, you know, were very, very surprised that he had such a keen interest in the Greek system; and it turned out to be that he was an alum of that particular fraternity and had gone to school there. And he used to come down on—he loved basketball, and he would come down for all the basketball games. And several of us that would go with him to the games, he would take us out to dinner, and he was just one of the guys.

I knew at that time he was a physician, but I had no idea that he was Dean of the Medical School. And then, to come up here and find out that he was different—we used to call him Charlie, and so calling the Dean of the Medical School, as a student, “Charlie” is a little difficult to do, so that relationship changed, in my mind.

But what Charlie Holman did that I thought was fantastic: each year he would invite one of the faculty members in for an interview, and he'd say, “How has the year gone? What do you need for the next year?” And I can remember that one of the tools that I was using as a research tool was the transmission electron microscope, and the one that we had was way outdated and we needed a new instrument. And Charlie invited me into his office and said, “Well, what are these machines? What do they do?” And so I described it to him, and he said, “Well, I'll see what I can do.” And a week later I got a call from Bill Zimmerman, who was the financial administrator, saying, “Dr. Holman says I'm to get you an electron microscope.” And at that time, this was back in probably—I'm trying to think. Probably in the late sixties, like 1969, and the instrument at that time cost \$85,000. So in today's dollars, that would probably be an instrument that would cost a quarter of a million.

So he was really a facilitator, and it was exciting to know that there was an administrator who had the time to talk with you individually about your research interest and what it would take to facilitate that, what he could do at the University level, or at the School of Medicine level, to facilitate your program.

ASH: Do you remember Dean Baird? You didn't work under Dean Baird.

CONNELL: Dean Baird was the first person who signed my contract, yes. He was Dean when I first joined the faculty in 1966.

Dean Baird was an unusual man. Dean Baird was able to walk down to the State Legislature in Salem, speak with the legislators individually, and was extremely influential. He knew most of the senators and representatives from eastern and central Oregon and could convince them, and always was able to get a very firm, strong budget for the School of Medicine.

In fact, at that time he was also the spokesperson for the School of Nursing. The School of Dentistry was located for many years, as many people know, over in the Holladay district in Northeast Portland. And although it was kind of associated with it, it went independently to the Legislature for its funding and so forth.

But Dean Baird was another individual who would invite people into his office and was a very strong, strong person.

ASH: I'm trying to understand him, because some people say he was a shy and quiet man, and, yet, you picture him going to the Legislature and having to have a lot of self confidence to do that.

CONNELL: He worked behind the lines. He would have one-on-one with people. So he may have been shy, but he was very effective in dealing in personal relationships one-on-one. And so I'm sure that he spoke with the individual legislators, as opposed to what we do today. We do that as well, but I know that both Lesley Hallick and Pete Kohler speak directly to the House and to the Senate committees regarding our educational and our university needs.

ASH: But things were different then.

CONNELL: But things were more on a personal basis. You know, you made that individual phone call, you got somebody behind you, and the politics were somewhat different. Much the same, but they could be completed more on an individual basis at that time, I believe.

ASH: Let me ask you about Roy Swank, because he was your immediate department chair, division chair, correct?

CONNELL: Yes.

ASH: And I was able to interview him, so we have him on tape somewhat. He hired you, and what was he like as a division chair?

CONNELL: Roy Swank I consider to be a prince. He was a great, supportive individual to work with. A lot of the equipment that I obtained for research activities, Roy Swank helped me get.

Roy Swank had a direct connection with Howard Vollum, and Roy set up a meeting

with the three of us, with Howard Vollum, myself, and Roy. We met for lunch and talked very congenially, and then Howard Vollum invited me out to talk more specifically and asked me what I needed in terms of equipment, and Howard Vollum provided the equipment for my research laboratory, much of it, besides paying half of my salary.

ASH: And this was way before the Vollum Institute.

CONNELL: This was before the Vollum Institute. Roy Swank had a good relationship with Howard Vollum; Howard Vollum had good relationships with the University in developing his equipment. I remember people in the Department of Physiology, graduate students, who were very much interested in electronics, in electrophysiology, who helped develop—were invited out—*paid* by Tektronix, but invited out just to experiment, to play around. They got a facility out there, a lab out there, to use the oscilloscopes for monitoring different kinds of experiments and to just kind of create. And they were paid to do that. So Howard Vollum, very early on, at least in my connections, back in the early sixties, had a strong connection with the University, and he had great respect for Roy Swank.

Roy Swank was an individual who was chief of the Division of Neurology, which at that time was in the Department of Medicine. Roy was always wanting to do research and was very research oriented and extremely productive, yet he had clinical responsibilities, and there was always pressure for those people in the clinical areas to take their share of the calls, and so forth. So Roy gave up his salary, his university salary, and hired another neurologist to take care of many of the responsibilities so that Roy had release time to do his research. So he was extremely generous, and he supported many, many people.

He provided a lot of seed money to people within the University to develop their research projects. My research project; Jack Fellman, who was a very productive researcher within the Department of Biochemistry, he supported; he supported researchers within the Division of Neurology and brought in a number of very productive researchers at the University.

Roy has to be—I think Roy retired from the University at the age of sixty-five, and that was probably in about 1974. Eighty-four, ninety-four—so he's got to be well into his nineties now. I went to his birthday party last year, where a great number of people gathered. And he is such a gentleman. I attended a number of European microcirculation meetings with Roy. He introduced me to people in the international research community, and I can say that I owe a great deal to Roy Swank. He was a very generous, caring man.

ASH: Now, you had a joint appointment between Anatomy and Neurology?

CONNELL: Yes.

ASH: So who was chair of Anatomy at the time?

CONNELL: Tony Pearson was the chair of Anatomy and one of my mentors. Tony was a true gentleman, a Southern gentleman out of North Carolina. He was an accomplished,

world-known researcher, neuroscientist, and, as I indicated earlier, he described the eleventh and twelfth cranial nerves, a lot of enervation, and, in fact, put together the world's best collection of human embryos that had been stained to study the nervous system. And, in fact, just before I retired from the School of Medicine I made arrangements for all of those slides that he collected, which were literally thousands of slides of all Streeter's horizons of embryos, and sent them back to the Armed Forces Institute of Pathology, where the Carnegie Collection of Embryology is located. This will allow researchers to access this collection; it could not be reproduced today, simply could not be reproduced today.

Tony Pearson was a bachelor, and he would invite Marilyn and me to go to dinner with him and a date, if you will; and his favorite date was Margaret Hughes, who was head of the Library. And one very interesting little story about that is, I had gone to the European microcirculation meetings in Aberdeen, Scotland, and Margaret Hughes knew I would be there, and so did Tony. And the last day of the meetings that were in Aberdeen, Scotland, a little memo came up on the screen to the side of the room where the presentations were made, for people who were receiving messages, and my name came up. So I went out, and the message said, "Sam, don't let Tony leave until I get there. Margaret" [laughter]. And I said, "Well"—and then I said, "Okay." A little later I got another message, and it was for me, and it said, "Sam, don't let Margaret leave until I get there. Tony" [laughter].

Both of them arrived, and we drove on from Aberdeen, Scotland, down to London. And in London, Tony was there to—the Royal Society was having a history of medicine meeting; and at that time in his retirement Tony Pearson was writing articles on the history of medicine, especially John Hunter's interest in the Cherokee Indians, American Indians. Apparently at that time the American Indians were, at the turn of the century, kind of a curiosity for the English. So Tony was attending that meeting, and it was all a very scholarly meeting. Well, he had tickets, but, you know, he wanted me to come along and I didn't have a pass, so he said, "Sam, you wear my identification badge, and I will take Margaret in with my two tickets." So I went in with that meeting, and I remember an Englishman coming up to me and saying, "My, Dr. Pearson, you look very young to have described the eleventh and twelfth cranial nerves," at which time I had to confess that I wasn't Dr. Pearson [laughter].

But he was another fellow, another mentor, which set high standards in teaching and research. And, you know, those are standards that I have always tried to achieve and hold very high. So I felt that I had a prime time here at OHSU with a great faculty and support.

ASH: Let me look at the list again and see if I've missed any names that you dropped that I wanted to pick up on. I think you were talking about Ruth Barnett when we were off the tape, so I would like to bring her up again. I know who she is, and if you could just describe her. She lived in your neighborhood, is that correct?

CONNELL: Ruth Barnett lived in our neighborhood, just on the corner of about Thirtieth and U.S. Grant Place. She had a beautiful home, a gorgeous home; and I, believe, had a daughter, but the daughter was much older than the rest of us in the neighborhood. But Ruth was a very quiet person, but her name would come up in the neighborhood conversations. You'd hear parents talking about the fact that possibly she had spent the night

in jail for conducting procedures, abortion procedures, in her offices in one of the buildings in downtown Portland.

And it was interesting that the medical community, including the Dean of the Medical School and professors at the Medical School, all knew that this activity was going on through the 1940s and the 1950s, and did not speak out against it, because they knew that this was a service or a procedure that needed to be done, and they were not going to condone her for that activity. So she was a very controversial individual but, yet, a person who was held in high regard, because many of the people in the community knew that this was a necessary thing and that if she didn't do it, it would go underground, additionally underground, and the outcomes would not be as successful in terms of health.

ASH: Thank you. [Pauses.]

I'm supposed to ask you about your progression through the ranks. You came as an assistant professor?

CONNELL: No. When I first joined I started out as an instructor, an instructor in anatomy and neurology. The rationale at that time was that the incremental steps, when you went from instructor to assistant professor, came also, not only with the title, but with an increase in salary. So it was to one's advantage to start out as the instructor. So I was an instructor for two years and then promoted to an assistant professor of anatomy and neurology, and after, I think it was, two and a half years then was promoted to an associate professor, where I received tenure at that time.

At that time Roy Swank had retired, was retiring, had stepped down from being chair of Neurology, and Neurology was becoming a department. So at that time I relinquished my appointment in Neurology and went a hundred percent, or a one FTE, in the Department of Anatomy. Then I spent an additional nine or ten years as an associate professor and was promoted, then, to professor of anatomy.

And during that time I was also appointed by the Dean of the Medical School, as well as the Legislature, as the Demonstrator of Anatomy. As the Demonstrator of Anatomy, it was my responsibility to oversee the anatomical procurement program for the University and, in fact, for the state of Oregon.

ASH: We're almost done with this side of the tape, but I'd like you to expand on what that responsibility included, and I think I'll turn it over now, before it clicks.

[End of Tape 1, Side 1/Begin Tape 1, Side 2]

ASH: So, what is a demonstrator of anatomy?

CONNELL: Well, the Demonstrator of Anatomy was the individual who is appointed through the University, and also, then, passed on by the Legislature, who oversees the acceptance and the disposition of people who want to donate—people or relatives of

individuals who want to donate their bodies for medical science.

ASH: Is this like the Oregon Donor Program?

CONNELL: And the whole-body donation program is a part of the Oregon Donor Program. The Oregon Donor Program is really a coalition of a number of transplant programs. There's the Tissue Community Bank that does skin, bone, and heart valves; there's the Lions Eye Bank, which deals with eye donations; there's the Oregon Eye Bank, which is associated here at the University; and also, then, there's the Pacific Northwest Transplant Bank, which does the solid organs: the heart, the liver, the lungs, kidney transplants. So it's a coalition to encourage people to understand the value of tissue and organ donation for the better quality of life.

And I was associated with the Oregon Donor Program for probably twelve years and, in fact, was on the executive committee and the chair of the Oregon Donor Program for a couple of years. It's an outstanding organization which provides a very valuable service to the state of Oregon and to our Northwest region and brings all of the programs together and kind of consolidates a unified approach to communicating to the public for organ and tissue donation.

But what was interesting about the whole-body donation program was that it—you know, the procurement of human bodies and the history of medicine are strange bedfellows, and there's been controversy and wild stories that have existed for years. And, in fact, in the early turn of the century, East Coast schools used to riot when they had the anatomy season in the fall because people were grave robbing. When you were accepted to medical school the letter would say, "You are accepted. Classes begin on" whatever date, "and you are expected to be there with your cadaver." So people—where would you go get a cadaver? Well, people, young people, are very innovative, and they'd go in and they'd grave-rob. And so there's all kinds of history in Europe and Great Britain about—and there's the Burke and Hare story, and all kinds of wild stories about procurement. And Benjamin Harrison was, in fact, grave-robbled, and his body was dissected in a room. So all that is very interesting.

And there were laws on books that stated that criminals would be dissected, all bodies. And we, in fact, had such a law in Oregon. It stated that anyone who died in our prison, that body would be donated to the University here for dissection. And it wasn't until 1947 that that law was repealed. And it was at that time that Dr. Larsell, who was head of the Department of Anatomy here at the Medical School, wrote a letter to the governor asking for it to be repealed. He said that did precious little to really enhance the gift of donation.

And so we—as a Demonstrator of Anatomy I spoke to the funeral directors associations, went out to PEO groups, ladies' clubs, and different groups to talk about organ and tissue donation and the value of it. And at the time that I stepped down from the School of Medicine and from the Department of Anatomy we had over ten thousand registered donors.

ASH: It's been a very successful program in Oregon.

CONNELL: It's been a very, very successful program. One of the things that Tony Pearson told me very early on, when he wanted me to take this position, he told me that you have to contact young people and have them learn and show them that there is value to organ and tissue donation; and he encouraged me to invite young people. So all through the years I made connections, partnerships, if you will, with the science teachers in the various high schools and would invite them up to the Medical School and take them through the laboratories and show them cadaver material to dispel the myth—you know, myth and fact, that the body is a beautifully created structure, that you have to treat that body with respect, there's nothing that you can catch. Then the kids would take that home and talk to their parents about that experience, so that we would dispel the idea that there's a big dark dissection room up on the Hill that was scary.

And so we would have many, many students come through, high school students, who were prepared for what they were going to see, and what we did is, we would explain and show the anatomy related to function, structure to function. Then we had a couple of—in our tour group here at the University, Terry Erb and Julie Carter were the initial ones who took this project up, and we had literally hundreds of students come through. And then there was a time crunch on budgets in '92 and those two individuals changed their positions. And then Jan Barber came on board, who was a live wire, much enthusiasm, lots of energy, and she and I got together. And I think that Jan now has close to two thousand high school students, from their biology classes, come through the University. They see the exercise physiology laboratory; they see the sonography imaging; they see a pregnant mother where they're doing some of the ultrasound to see the fetus. Then they come through the gross laboratories and they have demonstrations, and medical students demonstrate the cadaver material to them.

This is great marketing for the University. It's helping people understand, getting them into the University, seeing what's going on, and knowing that the cadaver material is treated with respect and that it's a unique gift to all of us.

You know, today there are CD-ROMs on the perfect body. We now have the virtual human being that's been dissected and quartered, if you will, and where they've taken, I think, up to three- to five-millimeter sections transversely through the body and they've done the image. Well, that is great for the perfect person, but how many of us are really perfect? And it's the anatomical variation—and I always told students that chance favors the prepared mind. So if you've seen a vessel, a blood vessel branch, in a certain position several different ways, you're going to be prepared to find it in several different ways rather than in the textbook position. So there'll be nothing that'll replace the real dissection that our students—of Allied Health and Medical School, Dental School, and nursing students get to experience. And that's because people value that donation and give that gift.

ASH: Well, thank you. I know that's still a very popular program with the high school students.

We talked a little about your progression through the ranks. I wanted to get back to

Hance Haney.

CONNELL: Yes.

ASH: And if you could describe him and some of his work and his influence here.

CONNELL: Hance was a very interesting individual, and I had a very close relationship with him. My father died very early on, and so the male person in my adult life after marriage was really Hance.

Hance grew up in Wisconsin, he went to the University of Wisconsin, where he took a Ph.D. in physiology, and then went on to the University of Chicago, where he took his M.D. He then returned to the University of Wisconsin because he wanted to be in academic physiology and was offered a position as a physiologist here within the School of Medicine in 1937. So he came out in 1937 as an assistant professor of physiology, and two years later—he had gone to Chicago for a meeting with the head of the department [Burget], and the head of the department died, had a heart attack and died.

ASH: At the meeting they were at?

CONNELL: At the meeting, he died at the meeting. And so at that time Dean Baird appointed Hance as the chair and professor of Physiology.

And what is, I thought, very interesting is that as the chair of Physiology Hance brought in a lot of the medical students. I think Clare Peterson, who was professor of surgery here at the University for many, many years, for probably close to forty years, was a student of Hance's and belonged to that physiology journal club group that did research and published papers. So Hance had a real influence on a number of people coming back in, into the academic area doing research.

Then, during the 1940s when the war broke out and a lot of the faculty had to go on to Europe in the war effort, Hance stayed but began to have to pick up some of the practice activities of the colleagues that were leaving. So he developed his practice in internal medicine, became board certified in internal medicine, and saw patients for a variety of the physicians who were away during that period of time.

When the war was over, Hance had a strong interest in clinical practice at that time and was offered a partnership in a practice back in Madison, or somewhere—I think it was in an area back in Wisconsin, in his home area. So he went back there for about six months in the winter, three to six months, and was terribly disappointed in the everyday practice and wanted the academic challenge. Dean Baird went back to Wisconsin—knew that Hance was not happy back there, took a trip back to Wisconsin and brought Hance back, and made him chief of the Outpatient Clinic.

His area of interest was in cardiology, and he was in with Herb Griswold and Bob Koler. He spent many, many years in internal medicine working here and also, for the longest

time, was head of the Admissions Committee for the School of Medicine.

And it was always interesting to hear the stories about the interview trips. They would go into Montana and Idaho, because Montana and Idaho do not have medical schools, or did not have medical schools at that time. They would take the train to those communities and interview students who would come to Oregon. And they'd go down to Eugene, and so on. And it's very interesting to have heard the stories that various people have told. And I think Joe Matarazzo remembers some of the most interesting of the stories of the groups that would go down and interview students.

But Hance was very much a scholar; he had extremely high standards; and retired when he was sixty-eight from medicine and then kind of spent the rest of his years cultivating and propagating rhododendrons. He got a lot of that interest from both Bill Krippaehne and Hod Lewis, who was professor and chair of the Department of Medicine for many, many years.

ASH: And Dean Baird had an interest in horticulture as well.

CONNELL: Yes, absolutely.

So those were times when the faculty was much smaller. There was a biochemist named Ed West, who was chief of Biochemistry, who was an internationally known person; Bill Todd, William Todd, who was also professor of biochemistry; and West and Todd wrote one of the very first textbooks of biochemistry, which was used almost nationally in all medical schools. The first biochemistry textbook oriented toward medicine. And Bill Todd had been a student of Hance Haney's back at the University of Wisconsin, so there was a close-knit relationship there.

And Hance, interestingly enough, and unbeknownst to me, Hance and his wife, Stella, and the twins, and the older son, John, and Marilyn, lived on Thirty-second and Thompson by Grant Park, and, you know, I used to deliver papers at their house, but I had no idea [laughter]. It was one of those things. No idea of that relationship until I was in college and lived across the street from Marilyn.

ASH: Interesting.

Tell me about the war years. You were in high school?

CONNELL: No. I was born in 1937, so in '41—we lived over in Northeast Portland, and my father had a radio shop and was involved—very much liked radio communications and that sort of thing. My dad had high blood pressure and was overweight and did not qualify to go into the service but was recruited into the Coast Guard as a radio operator. He installed radar equipment and radio equipment in the ships that were built at Swan Island and Oregon Shipyards located on the Vancouver side. And he would meet the ships coming in at Astoria and work with the team and work on the equipment coming in and complete it and then test it going out and catch the next boat coming in. But it was unique.

There was rationing at that time for food and supplies and so on. We always seemed to have a lot of food that came in green tins [laughs], and it was military, Navy supplies, and they were—for example, we'd always have these canned peaches, and it was because the ships that were coming in wanted to get rid of all that so they could get something new [laughter]. So the teams that were on board got to bring all that stuff home.

I also remember that at the time I had a close aunt that lived at the coast, and I can remember that there were watchdogs and military people patrolling the beaches at Seaside, Oregon. They were going from—on up to the river, and I think there were people going from Gearhart on after they'd crossed the river there, and right down to Tillamook Head.

And I also remember that each of the neighborhoods had a person who was designated to walk the neighborhood at night to make sure that there was no light showing from the windows. You had to have completely blackout blinds, and you were cited, warned and cited if you had leakage of light from your windows. Apparently, they were afraid that there would be flyovers where people would see light, and that would be a threat.

Gasoline was a shortage; rubber tires were a shortage. The only hardship that I recall was transportation. You couldn't get gasoline to go very far. We had a family farm out in Hillsboro, and so all the farmers got ample gasoline, and so we could always go out—had enough gas to get out to the farm and get gas and come back. So that was pretty much the only hardship that I recall, other than the fact that we lived in a large house and that we always seemed to have house guests. And I know that there would be people, families that were coming in, in the military, that didn't have any place to stay, and until they got squared away, found accommodations and so on, they would stay in our home.

ASH: Let me ask you now, back to OHSU, about changes in curriculum over the years as you have seen them.

CONNELL: Change is always hard, and you learn how to deal with the curriculum one way. When I first started out in the Department of Anatomy, anatomy really dealt with about two-thirds of the first-year curriculum. It dealt with both gross anatomy, histology, neuroanatomy, and embryology, and between the four courses it was a year long, and it was a very, very intense course.

The problem is, as with new information, some of the old information has to be dropped out. People who traditionally have taught this information feel ownership to it, and to come to them and say, "You've got to cut your course down; if your course is six weeks, you need to make it three weeks," that was always very difficult for faculty to accept. And it was particularly difficult for faculty members within the Department of Anatomy since we had the lion's share.

Well, part of the problem is that when you're doing research and you're doing a lot of teaching—if you're doing a lot of teaching it's difficult to develop and continue that research program, so you become more expert in the teaching area. And the Department of

Anatomy always had the highest ranking in terms of national board scores, in terms of student ratings for courses and so on, always ranked very high. But the research productivity in the department was much lower than some of the other basic sciences. And so we always would complain, “Oh, we’ve got so much teaching to do, we can’t do the research.” And so, consequently, we were given more time to do research and less teaching, and that was a hard pill for many of the faculty to swallow. So we have reduced.

And, in fact, teaching, I think, you know, it seemed like—I want to say that we had 700 hours in the curriculum of anatomy courses, and that got reduced down to 400. Well, that meant 300 hours of less time. But you know what really surprised me? I cannot remember, I can’t figure out, what information we left out [laughter]. So maybe we became more productive and began to highlight. And so the idea that there are difficult areas in a discipline that maybe you need to lecture on and other areas you can kind of just say, “Read this over and understand that because that’s going to be important,” but only spend your time on some of the more difficult concepts. And so we kept changing that down.

We began to develop interdisciplinary courses. We developed a course in Cell Organization and Function, which would take from the histologic level, to the cellular, to the molecular level and try to integrate that. And there was a professor in Biochemistry, Howard Mason, that kind of developed that. And that was an exciting new change within our curriculum. Then we tried—in the neuroanatomy course we tried to infuse more molecular, more chemical neuroanatomy in pathways, and so on, and modify that course from a traditional anatomical tract podology pathway. And so we kept changing.

And one of the things that I think that really came about is that finally the other places began—like Stanford University completely eliminated anatomy from its curriculum in the first year, and then they infused some of that during their clinical years. Well, they found that that was highly unsuccessful. And so other people kind of experimented with various programs to see how they could modify the curriculum.

I’d always thought that problem-based learning was a very exciting approach, and whenever we would talk about structure and function, we would center that around a clinical problem or a very functional area so that people would remember that, how to use that information in their practice, rather than memorizing origins and insertions of muscles and so on.

In, I think it was about 1992, Ed Keenan, Dick Jones, and I were invited to go to Albuquerque, New Mexico, to the University of New Mexico School of Medicine, where they had a complete problem-based curriculum. They had two schools: they had a traditional school of medicine and, then, a problem-based student program where they took twenty students per year. And it was centered around—for the first two years centered around no classes. Groups of five would get together and problem solve and learn issues that dealt with the disease. And when they put those students together in the clinical years and they finally took their exams, they were equal. They did just as well on their national board parts two and three. So we tried bringing that back to the University and developed a new program where there is more problem-based learning. But it’s more problem-based within a discipline.

But I think there is a continuing change as new information is obtained, there are new learning styles by students, that we need to change the curriculum. For example, today, in the Allied Health program, our anatomy and physiology course is online.

ASH: Oh, is it really?

CONNELL: All of the lectures, the lecture materials, are on the Web, and the student—and they're on the Web prior to the lecture, so the student knows exactly what the lecture's going to be, what the content is, what the question is, what the outcome should be, so they're prepared to go into that. So the lecture is still a tool for explaining those difficult areas, but there are other ways of reaching the students.

And so I think that—as I recall, I can recall when I was a student that we sat from eight to five, that I could have better spent some of that time reading the book by myself, rather than sitting in a lecture and hearing somebody repeat what is already in the book. There were certainly areas that I needed to hear that could be explained to me, but a lot of that information I could have picked up on my own very, very easily. And that sets up the model for adult learners, and that is where we're going to be lifelong learners and we've got to learn how to access information and learn it as we need it.

ASH: Now, I did see in some of the information I gathered about you that you won at least one teaching award. I wanted to ask you where you learned to teach. How did you develop that skill?

CONNELL: I think over the years I—in my thirty years in the School of Medicine I think I got fifteen years of an outstanding basic science lecturer or teacher. And it's not so much that you're the best lecturer; it's not so much that you have all the answers or the information; it's that you're excited about your discipline and you're willing to spend the time with the students to help them learn in their place. And, you know, I can't tell you why I would be successful in that, but I do know that I remember spending a lot of time with students.

I am still very excited about anatomy, and every time I see something, you know, in the laboratory I see something, it gets very exciting because it's very relevant. And I think that if you want someone else to be interested in what you're doing, you've got to show a lot of excitement and enthusiasm and take the time with them to develop that thing. And I used to spend a lot of time—in fact, it was after class that I felt I spent my most productive time with students. We would go—I'd have wrap-up sessions. You know, the classes would be done at five o'clock, and those that wanted to go off at five o'clock did so, but I would stay on and we'd have wrap-up sessions where students could ask questions and we'd talk about it, we'd go look at examples of the material. And that, for me, was an extremely rewarding—you know, many times as faculty it's difficult to measure your success in terms of daily activities—I'm sure you experience that too—but it's seeing the students say, "I get it!" and finally seeing the connections, that are extremely rewarding.

We used to—for another example, we used to give exams and we'd have practical exams, where people had to go in and identify, and a written exam, and we used to time those, and we'd say, "Well, you've got two hours to do them." And, then, in the practical exam, because we had everybody in, the students, we'd say, "You've got one minute to look at this structure, identify it, and then you move on to the next one." And so I kind of thought that's—you know, when I finally got control of it, I said, "That's ridiculous." I said, "We're going to give everybody the minute, and then, when it's all over, you go back and take as much time as you need to figure things out. And if you want to take the written exam, you take as much time as you want." And by doing that I was able to increase the percentages of success of the students.

What I essentially did was, I took my marginal grade area, where I had students that were doing marginal, delimited that group and lifted them up. Some people do not perform well under stress, and when they're timed to do something they get flustered, and if you get flustered at one station, you're going to be confused at the next, possibly. So by saying, "If you're confused at this station, forget it, come back to it later"—and so I think it's those kinds of things that students really enjoy or appreciate. And so I've always felt that I've had a good working relationship with students. We've had some outstanding people. I have been associated with graduates of our School of Medicine for over thirty years.

ASH: Another area that you've been active in is committee work, and I saw you were president of the Interinstitutional Faculty Senate for a while, so you were involved even at that highest level in the Oregon State System. Could you talk about that a little bit?

[End of Tape 1, Side 2/Begin Tape 2, Side 1]

ASH: This is Joan Ash interviewing Dr. Sam Connell in his office in Gaines Hall.

We were just talking about the Faculty Senate.

CONNELL: During the years, I served as an elected representative of the basic science departments of the Faculty Senate. Then, in, I think it was in 1991 or '90, I was elected to the Executive Committee to go through to become president of the Faculty Senate. And it was a very exciting time with lots of turmoil. The Faculty Senate has representatives from the Schools of Nursing, Dentistry, Medicine, as well as from our allied institutes: the Vollum, the CROET, the Primate Center, the BICC, and also had people from CDRC and Veterans Hospital. And the people would meet monthly.

Well, I was elected president for the year '91-'92. And, of course, in the spring in the year of '92, the Legislature was dealing with Measure 5, and so Measure 5 was going to have a devastating impact on the University. And it was my—going through that, I think in the good judgment and insight of Lesley Hallick and Pete Kohler, brought in the Faculty Senate to take a look at programs that were going to be reduced and/or eliminated so that there was faculty input and consensus as to how we were going to cut back on our budget, what programs were going to be deleted and so on.

Those were very trying times, and there was going to be a lot of cuts in the School of Nursing, the pediatric dentistry program was eliminated, a number of the allied health programs were offered up because they weren't central to the mission of the School of Medicine. It was at that time that Lesley Hallick, in her good insight and vision, sequestered all of the allied health programs into Academic Affairs, as opposed to being centralized within the School of Medicine, so they were protected.

So we had a lot of very interesting discussions in the Faculty Senate and committees and so forth. And as a result of that I was elected to the Interinstitutional Faculty Senate, which is a group of elected representatives from all of the state's universities, that get together on a monthly basis to discuss mutual areas of concern. Then that Interinstitutional Faculty Senate person would—the president of that group would report to the Chancellor and to the Board of Higher Education.

In 1994, I was elected president of the Interinstitutional Faculty Senate, which was just a tremendous year because it was the year that we were going to the Legislature to become a public corporation. And so I had the opportunity to give input to the—I think the Senate Education Committee, and testify why we thought it was important to become a public corporation, and also how the other institutions perceived our becoming a public corporation.

And, of course, we were looked upon as the flagship of the university system, and they were very sorry that we were going to be separate from the university system, and they were also very envious because they could very easily see the advantages, but were very thankful that we were keeping our academic programs aligned with the State System of Higher Education, so that our provost would meet with the Academic Council, other provosts, and so on.

So during that time I got to meet with the—for a year I met with the Board, and I presented to the Board of Higher Education some of our thoughts, from individuals from the University; addressed faculty salaries; the loss of faculty, good faculty, who could go elsewhere because of low salaries; dealt with issues that dealt with—somebody in the Legislature asked, “What do faculty do? What do they do with their time?” And when they heard that the average faculty member in our university system had some fifteen hours of contact with students per week, “Well, what do they do the other—you know, other twenty-five hours? If there's a forty-hour week, they're only fifteen hours with the students, what are they doing those other twenty-five hours? They're overpaid!”

And they didn't understand what the workload, what the work things are, the research activities, the lecture preparation, the committee service and all these other things that faculty do. So as Interinstitutional Faculty President we were involved in putting together a report on what faculty do and were able to present that to the Legislature through the Board. So that was kind of an exciting time to know what was really going on at the university level.

It was a time of collegiality, where I really made some close friendships and began

to value what having undergraduate campuses with your university—how important and how nice that really is. So I had some unique times. I was in the Provost's Office here at OHSU at the time that I was the Interinstitutional Faculty President, and I felt there might have been a conflict with other people saying, you know, that I'm now an administrator, I'm not a faculty member. Nevertheless, we made great friendships. A couple of friends are seventeenth-century English professors; one is a geologist. So it's kind of been a fun experience of collegiality, to meet with people who have different perspectives. We come from very much a healthcare, science environment. It's nice to go into one where there are other areas of cultural diversity.

ASH: So there wasn't much of a fight against our becoming a public corporation?

CONNELL: No. I think the State department of, what do I want to call it, business affairs or administration was concerned, because when we would submit a bid and wanted to buy a piece of equipment, it had to go through Salem, by the administration there, to look at the cost to make sure that it was in line and whether or not they could buy it cheaper. But they charged a fee, a percentage of the cost, to provide that service. And it wasn't necessarily the type of equipment—if you could get something cheaper, it wouldn't necessarily meet the needs of what a faculty member wanted; and the faculty members usually knew what they wanted, why they wanted it, because of the features, and they were buying it with federal money and felt that the State taking a part of that money and controlling that was not fair. So I think that there were numbers of, like, several million dollars a year *saved* by not having to go through the Department of Administrative Services for the State. So they were a little reluctant because that cut back on their budget.

But I don't think that there was a lot of—and I think it was Senator Timms that was very favorable and did a lot of the background work for us. I think John Kitzhaber, Governor of the State, who was one of our graduates—I had him as a student—was very favorably disposed and understood that if OHSU was to compete in the healthcare market, they had to have people that could make decisions immediately rather than waiting for a monthly board, that didn't really understand the healthcare business, to make decisions. So I think it was a very wise decision. I thought that our central administration, Pete Kohler, showed great vision in being able to free us so that we could be more competitive.

ASH: Speaking of administrative things, tell me about the origins of our becoming a university from your perspective as a faculty member. What did you see as the beginning of that idea, and do you think we are a university?

CONNELL: That's a very interesting question. It became very apparent, back in the late sixties, early years to 1970, that we needed to become a university. The degrees that we were granting were granted through the University of Oregon, Eugene campus. We had a larger budget than the University of Oregon at that time. The President of the University of Oregon, who oversaw things here at the Medical School, School of Nursing, and so forth, really didn't understand what the problems were, our budget, and it was difficult to do things. We were doing research activities that were a little bit different. It became very apparent that we were the tail that was beginning to wag the dog and there needed to be a separation. We

were developing curricula and bringing on new programs that had to go through Eugene that didn't have a whole lot to do with them, they didn't understand them or why the need was there. So it became timely for us to become a separate entity in our own.

For example, as a graduate student in taking the Ph.D., all of our students had to go down and take the language exams at the University of Oregon. So we were jumping through hoops at the University rather than being evaluated here by our own faculty and our own programs. So it was just a lot of extra, I think, work that was inconvenient, and it was timely that we separated.

It was very interesting. I remember when we separated and became a university and all of a sudden realized that we really hadn't put in the paperwork for the accreditation. Our accreditation umbrella was through the University of Oregon. We were no longer a part of the University of Oregon, but a separate entity, so we quickly had to write up—do a self-evaluation and apply for accreditation. We received temporary transitional accreditation and then had to prepare the documentation.

The question as to whether or not we are a true university today: in the true sense of defining a university, I don't think we are. We are a collection of institutes. And I see that in the allied health areas very clearly. We do not have lower division courses, so we accept students who have had lower division, and we offer baccalaureate degree programs. We accept students who have had the community college or the university experience, but sometimes they don't have all of the credit requirements that are necessary for the degree, so they have to go back through Portland State or some other institution to pick up those credits. Our nursing program is a two-year baccalaureate program. The students all come with at least two years of a university or an associate's degree program. So we are dependent on the other colleges and universities within the region to that initial preparation.

So I think that, from a standpoint of the allied health programs, we would be stronger if we truly had the undergraduate component which is in part of a university. We also do not have the breadth and diversity of courses that can complement a thing. So we are really a collection of professional schools or institutes. And I think we're very strong in those particular areas, but as a university which encompasses all disciplines, we're certainly not that. We're certainly a health care, health science care discipline. I think we fulfill our mission within the state very, very clearly and very effectively, but there are times when I see a strong advantage of being articulated with or having an undergraduate part of that program here at OHSU.

ASH: So I think what I hear you saying is that if the first two years were within our control, then when we get them in the third year they would all be at the same level.

CONNELL: They'd all be at the same level, all of the prerequisite courses and the kind of background we need. For example, we have many students who come from a particular college or university where they've had two years of experience. They certainly have the credit hours necessary for upper division advancement, but they haven't had all of the humanities courses and so forth that we as a university may require. So those students

who come to us and matriculate may have to, while in our programs, take a course at the community college or Portland State University to be able to graduate with a baccalaureate degree after two years.

A good example of this is the two-plus-two programs between the community colleges and the University. For example, students currently that are in the medical technology—ML team, medical technology technicians program, which is an associate's degree program, Portland Community College, a two-year program, for them to come into our medical technology program, which is a baccalaureate degree, they are shy a number of credit hours and have to make those hours up through Portland State to be able to get their baccalaureate degree in four years. And so that doesn't really kind of make sense for the people who go to the community college or otherwise are penalized.

ASH: If they'd done the first two years at Portland State, however—

CONNELL: If they've done that and they've been in close contact with us to meet all of the requirements for graduation, they're in good shape.

For example, in the School of Medicine a person who—most of the people that matriculate in the School of Medicine have at least a baccalaureate degree. There are occasionally some—in earlier years there were many more because we had many students who were accepted after three years of college. They had to be able, then, to be able to complete all the requirements by the end of the second year, most by the first year, to receive the baccalaureate. So we give a baccalaureate degree to medical students as well as that M.D.

So we can offer the baccalaureate degree, but we do not necessarily offer the diverse curriculum that is required for that, or the number of hours for that particular degree. So as a university we certainly have the research component, we have the educational component, but we are heavily into science and healthcare professional as opposed to some of the other humanities.

ASH: Well, since we're talking about allied health, let's go back to the beginning, and how did you get involved in the Allied Health program, and, particularly, how did you become the director? Can you tell us about that progression?

CONNELL: Certainly. When I decided to take early retirement in 1994, I had an exit interview with Lesley Hallick, and Lesley Hallick at that time was juggling a number of activities. She's simply amazing. She not only was juggling the Academic Affairs for the University—and that's for the schools of Medicine and Dentistry and Nursing and their budgets and all those kinds of issues—but also at that time the director of the BICC had moved on, so she assumed as the interim director of the BICC, and also was overseeing the ITG people, and also was overseeing the allied health programs. So her plate was extremely full, and she offered me the opportunity to come back part-time, half-time, and take care and oversee as the Assistant Vice Provost for the Allied Health programs, and undergraduate articulation, by the way.

So I accepted that, and she allowed me to write my own job description, which very few of us get to do. But part of that job description was, for the undergraduate articulation, to really be able to go out to the high schools, go out to the community colleges and talk about the opportunities in allied health and recruit young, good people to OHSU.

It's interesting in the fact that there are some 2,700 students who applied to the School of Medicine last year; they accepted ninety. What do the other twenty-six-hundred-plus students do? What other opportunities do they have? Do they sit around and reapply, or can they rethink? And if they knew that there were 150 different allied health professions they could go into which support health care, maybe that would interest them. And so there are lots of good opportunities. And so it was my hope that I would be able to go out and speak about health career opportunities. Aim for medicine, dentistry, whatever you want, but if you don't make it, there are some other very good choices where you can provide service in health care.

And so I took that on, and there are eight of the allied health programs with good directors, good, solid programs, and it's delightful to work with the programs, help them problem solve, and to see their successes. So I've done that for five years now and have had just a great experience with the programs and am hopeful that we'll be even able to develop a couple of new programs here at the University.

ASH: What are the present plans? Seeing that allied health is the future of health care, some people think, what are the plans at OHSU?

CONNELL: Well, certainly, the allied health plans have really grown out of the School of Medicine, except for dental hygiene which has kind of grown out of the Dental School. As the specialties and the various disciplines become more complex they need to have the technologists that can deal with that. The pathologist couldn't do all the laboratory tests, so they developed the medical laboratory technicians; the radiation therapy physicians needed somebody who would specialize and really develop plans for radiation therapy for cancer patients. So all of these programs have developed within the departments of the School of Medicine.

As dollars have become short and we're caused to focus more on our mission, our priorities for various activities, the allied health programs become squeezed, and Lesley Hallick, in her great insight, brought those programs, with their dollar support, into Academic Affairs.

Nevertheless, we are still dependent on the School of Medicine, for example, for those programs within the School of Medicine, for in-kind support. The clinical laboratory scientists, the medical technologists, still need to have a pathologist come in and put things into perspective. They do their hematology; they do their microbiology. They can get the faculty to handle that, but they need a pathologist to come in and put it in perspective. In the physician assistant program, the physician assistant faculty can teach the basics but they still need to have experts in the various disciplines—orthopedics, pediatrics, internal medicine—come in and give in-kind lectures. So we're still very much attached and dependent on the

School of Medicine for resources.

Our vision—or, my vision, and I've shared this with Lesley, is at some point in time to establish a School of Allied Health. And so Lesley refers to the allied health programs as a “schoolette,” if you will. We're kind of like a school, but not really a school. We would have to identify a larger budget so that we could hire people to do those in-kind services that we are now receiving.

ASH: For free?

CONNELL: Receiving it for free. You know, we can go to the School of Medicine to Dr. Bloom, the Dean, and say, “We need somebody to come over and do this,” and he will go to the department chairman and say, “This is a requirement.” So that is an important factor when you need faculty to come over and help you in your teaching. Otherwise, we would need to be able to go out and hire part-time people, pay part of somebody's FTE, to come in and do that particular teaching.

Also in the Allied Health we are attempting to do two things: we're trying to share our resources so that an individual—for example, in the anatomy and physiology course, we have a common course for the radiation therapist, for the physician assistant, and now the dental hygienist. So it's going to be one course for all three, and we will, in our laboratory experience, add value to the course by dealing with the oral cavity for the dental hygienist; we'll deal with cross-sectional anatomy for the radiation therapist; and take a look at surface anatomy more for the physician assistants who need to know where surface relationships are. So we're beginning to share the costs and the curriculum. Our immunologist in the medical technology program is going to give lectures to the doctor-to-pharmacy students, to the PA students, to the medical technology students.

So the more we can share resources and become, quote, a “university-like” group, the more cost effective we become. So we're hoping that the Allied Health program will grow in strength. There's certainly a national trend for an interdisciplinary approach, and we currently have a grant, which is in its third year, from the public health bureau, HRSA, which is a geriatric interdisciplinary training grant. What we're attempting to do is to use a geriatric model to bring all the disciplines together to treat the patient, so we have workshops that are problem-based workshops for the students, as well as didactic lectures and different kinds of discussion groups, and it's been very effective.

I truly believe that no single practitioner, healthcare practitioner, can control all of the information that is best for a patient, and the specialties, the allied health people, are skilled and specialized in their particular area, which can bring information to the bedside for the team to make the best decision for the health of that individual. And we're using the geriatric model, which is very popular with the federal government today.

So I think that the allied health people are beginning to work more as a team, and it's a fun time to be associated with them.

ASH: How does it work administratively, in that there are heads of each of these allied health programs? Do they report administratively to you?

CONNELL: Each of the program directors reports administratively to me; I report to Lesley Hallick. But the program directors also can go directly to Lesley if they have an issue that they feel that's above me or that I'm not cooperating with them. So they have the opportunity to go to Lesley if they so choose. But for the most part they come through me, and it's been a very good working relationship.

ASH: So, in a way you're like a dean. If you were a school.

CONNELL: Very much dean-like. In fact, I attend the deans of allied health meetings, and so on, and I have many of the same responsibilities that deans at various allied health programs have.

ASH: New programs: are there any on the horizon?

CONNELL: Yes. There are a couple of programs that are imminent, I think; but they're expensive programs, and so we need to work out ways. We have a very strong department of physical therapy and rehabilitation. We take trainees from Pacific University, from all over the nation. And we would very much like to start a physical therapy program here at OHSU. And that would be a joint program with Oregon State University.

What is unique is that Oregon State has a very strong health curriculum in their College of Health and Human Performance. It's the idea—we've written up a curriculum, a proposal for our program, where the pre-professional phase of the program would be offered at Oregon State or at other state universities, and OHSU would offer the professional phase of the program, and it would be a joint, combined degree between Oregon State and OHSU. But it would be a strong program.

We've determined that there is a need for about seventy physical therapists per year in the State of Oregon. Pacific University is producing some thirty of the physical therapists per year. So there is kind of a—in Oregon there is a definite shortage. However, there are some proprietary issues between Pacific University and OHSU. Pacific University has a feeling that we would be in competition with them and that we might cause their financial pool to decrease. And by that, the State of Oregon has a—it's a part of the WICHE program, which specifies that the State of Oregon will pay the difference between instate and out-of-state tuition, or private college tuition, for those students who are accepted into programs that we do not offer in Oregon. So the public university system does not offer physical therapy, Pacific University...

[End of Tape 2, Side 1/Begin Tape 2, Side 2]

CONNELL: ...physical therapy students, not only in other states, but also at Pacific University. I don't know what exact amount that is, but I've heard that it ranges between three and four hundred thousand dollars per year, which is a significant amount of money

that can go toward an instate program.

So physical therapy, and eventually occupational therapy, would be two real strong programs that the Department of Orthopedics, Charlie Bird, would be very supportive of. Linda Barbee, who is the director of the rehabilitation services at the University, is very excited about that, has wanted a program for many years. So we're going to try to get that one going.

The other program that I'm very excited about, and hopefully we'll have, is the perfusionist program. The perfusionist is an individual who works with cardiac surgeons and operates the cardiopulmonary bypass apparatus, the oxygenator, prepares all the fluids, and so on, that are going to be used.

The program—I originally, with the Department of Surgery and an individual physician-assistant perfusionist, Jeri Dobbs, started the program in the early 1970s when cardiopulmonary bypass procedures became very prevalent and so forth. We started a program here at the University which we had for probably eight or ten years. Then, when Dr. Albert Starr moved more completely over to St. Vincent's Hospital, he took the program with him, and the program then was articulated with Portland Community College, which offered the credit and the certification with the St. Vincent's Hospital. I stayed associated with that program and I taught the anatomy and physiology to those—they had anywhere from five to nine students per year. And I've worked with them, and they're the highest quality of student for that one-year program that they would be there.

As many people know, everybody established a program in perfusion, and soon there were multiple programs up and down the coast and the Northwest and west of the Rockies. Then, as the cardiologists began to do a lot of angiography and transluminal angiography, then the number of perfusionists dropped down and programs stopped. Currently there is only one program west of the Rocky Mountains. That is in the University of Arizona in Tucson, and they train one or two students a year for their own use. So that means that the St. Vincent's-Portland Community College program was the only program in the West.

The accreditation societies for perfusionists last year decided that the entry level for perfusionists would be the master's degree. That eliminated the certificate kind of program that Portland Community College could offer with the associate's degree, so the program there was going to cease to be. Dr. Starr approached me to see if I'd take the program back here at the University. I've written a proposal to be submitted to the Academic Council of the State System of Higher Education, to go on to the Board, but we are waiting for the new head of cardiac surgery to be appointed, and they're in the throes of doing that now. It sounds like, from what I've talked with Don Trunkey, that there's a very exciting group of people that could come on board. I know some of those people. They're very excited about having the perfusion program.

So it would complement very nicely our programs, because the anatomy and physiology would have to be over the—the hematology is something these students need.

They could get some of the clinical training through the physician assistant program; they would get surgical training through the Department of Surgery. So it's a nice match for what already exists here at OHSU. So I'm very excited about that program coming on board.

ASH: What are some timelines? So, we have PT, OT, and perfusion on the horizon.

CONNELL: And my feeling is that the perfusion program is probably a year from this September, a year away. There is a shortage of perfusionists. In fact, we have a shortage here at OHSU; so we have, I think, a real interest in getting this program going. And I think the other hospitals that are doing cardiac surgery are very interested in having a continuous supply of good potential candidates to hire.

So it's fascinating. Last year there were seven people in the program, and by the third month of the program, four of the seven students already had positions offered; they accepted positions at significant salaries. So it's a very attractive program. It was a one-year program. Of course, we would upgrade that program to a master's degree level because that's what the entry requirements are going to be, so it will be a two-year program. But I'm hoping that a year from this September that we will be able to do that. Physical therapy may take a big longer.

ASH: The complications.

CONNELL: The complications of how we're going to support it, how we're going to share the program, and how we're going to deal with the other proprietary program in Oregon.

ASH: And OT, how close is that?

CONNELL: Occupational therapy we've not really discussed. It would be very similar to the physical therapy, the curriculum would be very much the same; and once the physical therapy program is on board, then we could go ahead with the occupational therapy.

And I think that what is exciting is that there are cross-training programs today, that have started, where they're taking occupational and physical therapists and adding one year to their curriculum and having them get both credentials.

ASH: So that's a three-year, then?

CONNELL: So it would be, essentially, a three-year program, which would be very worthwhile because there are a lot of communities that need a physical therapist and an occupational therapist but may have the salary only for one, so they could get a cross-trained person. Maybe they haven't got enough work for an occupational therapist full time, nor do they have enough for a physical therapist full time, but between the two areas they could hire one person full time.

And if they're cross-trained—and we're beginning to see more of this nationally, of

cross training. By that, I'm seeing that people who are radiation therapists are also certified in areas of sonography, in MRI, in CAT scan, and vascular technology, so they can do more than one function, so that it's more economical for the hospital or the unit to hire an individual who has greater capabilities than hiring several.

And so I think the other exciting thing is that we don't really know what kinds of cross training we're going to need to have in the future. I think there are supportive allied health programs that will emerge with the new way we're delivering our medicine. I also believe that the homeopathic medical fields are going to merge, because more and more people are asking for alternative medicine, alternative to the allopathic, traditional western medicine. We're beginning to see acupuncture, Oriental medicine, if you will, used in cancer patients to eliminate pain. They do not want to take drugs which impair their cognitive abilities, so they're asking for an alternative, acupuncture, to deal with their pain.

So there are disciplines that are going to develop and emerge that we are unaware of, and so I think we just need to keep our eyes open to see and listen to what people are asking and what the community needs and then developing programs that will fit those needs.

ASH: I can see where you're really excited about this.

CONNELL: Yeah. I think there are—I truly believe there are great opportunities, and I see so many people that want to get into the medical field. I served on the Admissions Committee for the Medical School for nine years, and my greatest challenge was not dealing with the people that were accepted in the Medical School, but how do you counsel, how do you deal with the people that are not successful in getting into medical school? Here, they've spent four years or more trying to get into medicine and they haven't made it. They want to be a caregiver. Well, what are the alternatives? Are there other disciplines that they can get into without too much additional training and time that can be rewarding, financially and, I suppose, spiritually or just in what they're contributing to society?

ASH: Let me check my list here. I know I told you that we would end at three. We're just a little past.

CONNELL: We're fine. I'm in no hurry.

ASH: Women and minorities. That would probably be something that you could comment on from both the long Medical School experience, women and minorities in the Medical School, and then move on to allied health, if you would.

CONNELL: Sure. When I first started at the Medical School there were two women in a class of, I think there were about eighty-five of us. There were two women. Both are practicing, one in Washington and one in Oregon. And there were no minority students. I should say there were no underrepresented minority students. There were some Asian students that were going through, an occasional one.

Then, you know, I think there was an attitude that women would go into nursing, they would not go into medicine, and the fear was that if they were accepted into medicine that they would want to have children and would get out of the practice. This reversed, fortunately, and by, I would say, the late seventies and early eighties we had an occasion where we had fifty percent women and fifty percent men; and, in fact, one year we had a higher percentage, I think we had, like, fifty-one, fifty-two percent women and the difference being men.

It was interesting that many of those women students were older. And there is one prime example that I thought was just great, Dolores Leon. She is an anesthesiologist at St. Vincent's Hospital. Interestingly enough, she's married to Fernando Leon, who is a cardiac surgeon in Portland as well. When she and Fernando, Dolores and Fernando, were first married and had kids they lived just around the corner from me in Northeast Portland. I remember Dolores Leon as a parent and mother, and my next contact with her was as a first-year medical student. And we used to refer to her, lovingly and fondly, as Mother Leon. She was the individual who brought sense, brought a sense of calmness and priorities to medical students who were just, you know, eager and uptight about exams, and so on. And she kept saying, "There's another aspect of life; you don't have to be uptight." So she was a unique individual who came through who I think was representative of the women who started coming through. And then we began to find that there were probably almost equal numbers of men and women applying to the Medical School.

With respect to the underrepresented minorities, we always had some Asians that would come through, but American Indians and African Americans, had very few. And we would interview a number of African American students, but very few of them would matriculate here. We'd offer them slots for admission, but they would not matriculate here. And when you'd ask them why, later on, the comment was, "There are few or no other students that look like us," African American students, and there were very few African American faculty. And so they would go where there were more people like themselves, and so many of them would go to San Francisco to medical school or to Los Angeles, because there were programs that existed for many years where African American and minority students could get in and be accepted to any of the schools because there was an anxiousness, if you will, to increase the diverse population of students.

So we still, at OHSU, are not attracting the qualified applicants to medical school, and I think that Ed Keenan indicated that there were a number of African American students, or underrepresented minority students that were accepted into the medical program, but very few of them in fact matriculated. So, you know, I think they need more mentors and so on. So that's a problem we're dealing with.

And we deal with very much the same thing in the allied health professions, have very few. We have Asian students that come through the program, but very few African Americans. So one of the things that we are doing this year, and what we've done is, I applied for a federal grant from, again, public health to develop an interdisciplinary diversity training program, so that we can develop a program for the allied health people to deal with people of color. But we have to start out with training our faculty to develop competencies in

dealing with students and people of color, and hopefully we're going to be able to increase the number of students of color within our University.

We also have a university program called Health Career Connections, which Mary [Michaud?] oversees, and she's associated with the AHEC office within the University. We are developing partnerships with a lot of the Portland public schools, with the community colleges, to attract students of diverse ethnic groups and to nurture them, to get their names, to make contact with them, to get them up to the University, to see if we can't establish a better pipeline for the influx of minority students.

I, as I said, grew up in Northeast Portland. There was—you know Northeast Portland does have an African American community. I know a number of those people, and when their students go on to school, many of them want to get out of Portland. And I think when they—and, you know, they go on to medical school, but they've never had the close association with the University here. So I'm hopeful that in our program that we're developing that we are making those connections with these students, getting them excited about coming up here and pursuing their education here.

Oregon does not have the diversity in population that other states have, and so we're behind and I think need to do something to improve that, the numbers.

ASH: My last question will be what are you most proud of having done here at OHSU in your years here, which is now thirty—how many?

CONNELL: Well, I started as a student in '61, I joined the faculty in '66, so I've been here thirty-plus years.

I guess my greatest satisfaction are the graduates that I've had, the students that I've had contact with. Again, it's very exciting to be out in the community and have somebody come up and say, "I really enjoyed your anatomy class." Or they'll cite a quote that I said. I always say that "Chance favors the prepared mind," or, "The eye can't see what the mind doesn't know," and they'll come back and remind me of those things. And it gives me a very warm feeling of success, having been able to share my excitement for my discipline with a large number of students. I have a very warm feeling about OHSU. It's been a great—it's supported me, and I feel that I owe the University a great deal. I suppose that the student interaction has been the most rewarding experience I've had here.

ASH: Well, thank you so much. This has been great fun. It's been lovely looking out the window on this beautiful day.

CONNELL: [Laughter] This is the finest office. Lesley, when I took the position, said, "Go over to Gaines Hall and pick out an office." So I picked out just the very, very finest.

[End of interview]

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