

ORAL HISTORY INTERVIEW  
JULES B. LAPIDUS  
MAY 18, 1984

[Note: The quality of the audio recording was very poor, so there are a significant number of gaps and spelling errors in the transcript that may hinder readers' understanding of the text.]

Q. Tape 1, side 1. This is May 18, 1984. We're talking to Jules Lapidus. I'm Bob Buerki.

You were born in Chicago in 1931. Could you tell us a little bit about your early life, your family and how you became interested in pharmacy?

A. My father had a neighborhood drug store that was two blocks from where we lived. And from my earliest recollections of our drug store, it was a mom and pop store which was old variety. My mother worked in the store and then from the time I was very small, I was in and out of the drug store. It had a soda fountain in the early days and I worked in back of the soda fountain. This store was also on the corner that was between my house and the grammar school that I went to. And so it was my habit to stop in the store everyday on my way home, which was one of the major opportunities I had to see my father because the store was usually open from 8:00 or 9:00 in the morning until 11:00 at night for a long time, for seven days a week. And my father would open up in the morning and he'd come home sometime during the day and eat lunch and take a nap, but I was in school at that time. Then he'd go back to work. My mother worked sort of part-time in the store. So I had very early recollections of being in a drug store, never particularly interested though from the professional aspect of pharmacy.

Q. Is that somewhat due to the lifestyle of your father?

A. I don't know. It may well have been. I didn't see that as a terrific way to live. My father

never went to pharmacy school. My father was an apprentice before 1912 or 14 or something. I forget the cutoff year but there was a year way back there, at least in Illinois the law was that if you were a registered apprentice prior to that time, you could take the state board. He was very, very good. I have a recollection of him being very, very good and loving to come home. He could make \_\_\_\_\_ suppositories two at a time, one in each hand. And it was beautiful. He loved that part of pharmacy. And of course those were the years where that part of pharmacy was beginning to leave. He was spending a God awful number of hours every day standing upon marble floors selling things to people and the role that he really loved was the compounding and the talking, discussing things with people at the neighborhood pharmacy. That part he \_\_\_\_\_. So he wasn't terribly happy about pharmacy per diem in his life. It was a difficult, debilitating experience and I watched this of course. And this didn't look like a terrific idea. I had difficulty seeing what the intellectual aspects there were in it from that kind of operation. At the same time, I was in so many other things, primarily music and literature. My friends were \_\_\_\_\_. And so I wasn't terribly interested in pharmacy when I was quite young. When I went to high school, I worked in the store all the time, from grammar school on to high school. And when I went to high school I played in the band and orchestra and it was my intention in my senior year to go on to music. And that precipitated great family discussion, arguments, fights. My father and mother had both come through the depression and they were very security conscious. And the argument always was you can do \_\_\_\_\_ anytime you want, but you get a degree, when we as parents will know that you're taken care of, that you can earn a living and so on and so forth. And eventually I

succumbed to that.

Q. So second in a short line of pharmacy?

A. That's right. I was a pre-med student for a year though, prior to entering pharmacy school, and this was at the University of Illinois at Navy Pier in Chicago, which was an interesting experience. This was a branch of the University of Illinois located in a building called Navy Pier, which was an old pier. A very long building which stretched out into the lake. Had an interesting time there. Picked up a few credits. Then got accepted into the College of Pharmacy and entered the college.

Q. Was it your intention?

A. During that year as a pre-med I didn't know what I wanted to do. I was taking courses and I was having a terrible time in calculus. I did very well in chemistry. I did very well in English. But calculus, I bombed out in calculus. Flunked it cold. And with pressure from home I said, "Okay, I'll go to pharmacy school if I can get in." So I was accepted to pharmacy school and went there. I'm telling this because the curriculum at the College of Pharmacy at that time at the University of Illinois was such that no matter how many credits you came in with beforehand, it still took you exactly the same amount of time to go through school. There were two courses in pharmacy that had to be taken and there was nothing you could do about it. Consequently, my first year in the College of Pharmacy I took almost no courses. All I took were pharmacy courses because I had credits for the basic kind of stuff, chemistry, so on and so forth.

Q. You had four years of residency actually in addition to the pharmacy courses?

A. I'm not sure I follow that.

Q. They required four years of actual residency in the college?

A. Yes. There was no way around it. No way around it. Casting around for something to do that first year, I met a man named Leon Gershbine, who was a professor of golly, I don't know, biochemistry and physiology. And worked in the Department of Clinical Sciences in the Medical School. I met him because he was a faculty advisor to the University of Illinois Health Professional Schools orchestra. And I joined that orchestra as soon as I got there as a bassoonist, which is what I played all through high school. Gershbine had a research lab and asked if I would be interested in working in it. And I said, "Yes" because I had all this time. I spent a year working for him.

Q. Your freshman year?

A. During my freshman year. I was going to add almost no classes. He was working on two hormones. Secretin and Cholquestaquimine. One for the pancreas and the other for the gall bladder. And what I learned to do in that laboratory was to collect this stuff. And the way we did that was by going go stock yards and collecting hog intestines and extracting them and doing all natural products work-up and getting extract basically and then I would do all the \_\_\_\_\_ extract, which involved surgery on dogs and canulation of the pancreas and the gall bladder and then injecting extracts. It was fascinating work.

Q. You were doing things that graduate students don't get into until their second or third year.

A. That's right. That's right. It was very, very interesting. Learning surgery was interesting. There was a graduate student in the lab and Gershbine and his graduate student taught me the surgical procedure. And I got to feel very adept at that eventually. It was quite a

thrill for someone. I was in the impression that in college I would come in and put on a white coat and that whole business. And to do this surgery. The other thing that was fascinating was that when we would get a dog that would give us reproducible results, that would standardize quickly, would give an injection of a standard compound. If the dog would standardize rather quickly, then you wanted to assay as much things as possible on that dog. Which would mean you would work continuously until that dog was no longer giving you results. It might be for 24 hours or 36 hours at a stretch. You would sleep in the laboratory and work in between runs. And again, that was very hard but there was a certain romantic aura about doing that. You felt like you were really involved in medical research.

Q. Sounds like working in a drug store for 18 hours a day.

A. Yes, in a way. The other thing that was fascinating to me in that particular laboratory is the man who had been Chairman of the Department of Physiology for the University of Illinois and Chairman of the Division of Clinical Sciences, which was the research lab. Until perhaps a year before I started there, was a famous name in American science, a man by the name of Andrew C. Ivy. Andrew C. Ivy was one of America's great physiologists, really an astoundingly great man, who in a classic example of what could happen in science. He is the man whose name is not associated with contributions to physiology, but with a phony drug by the name of Quabiosin. And Andrew C. Ivy was sold a bill of goods by the inventors of this so-called drug. He went way out on a limb and bought it, hook line and sinker, went way out on a limb, supported it, talked about it,

effectively did research on it. And he lost his job over it. He had to resign eventually. I think the repercussions of what went much higher at the University of Illinois. Because here was man who was a great leader and who had been taken by a scam basically. It was a very sad thing to see, but of course it was fascinating for me as a young man interested in science, to hear all this scuttlebutt going around the department. There was a pro-Ivy group and an anti-Ivy group. Very, very interesting time. I finished that year and my second year in pharmacy school was probably the most important year in my entire life relative to career. Because I took organic chemistry then and I was fortunate enough to have a brand new instructor in organic chemistry. I had several but the major person teaching in the organic chemistry course was Ed Fissman, who was in his first year as a university professor after graduating from the University of Wisconsin. First or second but anyway his first teaching job. And I loved organic chemistry. Just absolutely loved it. Hit it off very well with Ed Fissman. And the other two people who were teaching organic chemistry at that time were Jim Garry and Ralph Fanning. George Webster was the Chairman of the Medicinal Chemistry Group at that time. The Dean of the College of Pharmacy at the University of Illinois was a man named Earl Searles, who epitomized everything bad that you could think of about what pharmacy used to be. He had no respect by anyone that I could ever find. His wife was named Daphney and one of the big events of the year is when the senior students would get together for a tea with Earl and Daphney and she would play the piano and we'd sing the loyalty song. It was a standing joke with all of the students. The students would be very cruel of course and Searles never realized it. George Webster was a pretty remote figure. I would see George

Webster as a teacher until I was a senior taking an electric course. But that's another part of the story. But at any rate had a marvelous time in organic, absolutely loved it. It came naturally. I was very, very pleased with it. And so after my second year in school, the spring of my second year, I began to cast around for a job for the summer time. And talked to Lissman about it and he asked me I would like a job in the chemical industry. And I thought that sounded pretty interesting. And so he contacted the people who do it, the Glidden Corporation in Chicago.

Q. The paint people?

A. The paint people. Paint and also food. They made margarine. And got me a job there for the summer time. There's several interesting things about that job. It was very instrumental in molding a lot of things in my future life. This was the summer of 1962, something like that. Glidden at that time was making a compound called \_\_\_\_\_ alcohol, which was a precursor for cortisone. Cortisone had just come on the market, Merck and a couple of other places were making cortisone, and it was a long and laborious process. And the key intermediate was a compound called \_\_\_\_\_ alcohol. And the Glidden Corporation was making it. So with all the paint chemists and all the food chemists there was a small group, about 20 people, who were the production chemistry. What we were doing was making \_\_\_\_\_ alcohol. I came right out of first year organic chemistry into running reactions in hundred gallon stainless steel glass lined kettles. And the reactions I would put in test tubes, classic kind of organic reaction, on this enormous scale, in a very unusual group. There were maybe three of us in that group who were white, all the rest were black chemists. And I had never met a black chemist

before. The reason that they were black chemists was that the Director of Research for the Glidden Company was a man named Percy Julian. And Percy Julian was one of America's great black chemists. A steroid chemist. And because Julian was there, he hired black chemists, primarily from Tuskegee and \_\_\_\_\_. It was a redeeming experience because we viewed ourselves, we, this production chemistry group doing fancy sort of organic chemistry, as an elite group. All the paint chemists and the food chemists were sort of \_\_\_\_\_. Very close knit group. Black or white, it didn't make much difference. But a lot of open talk about black and white. And for the first time I realized from talking to these people what kind of social situation you were looking at in America. They were black chemists and they were good chemists. And they couldn't get jobs anyplace else as chemists.

Q. Tape 1, side B. I think that after Arthur's first \_\_\_\_\_ we talked about his enthusiasm for a variety of things. Remarried again seven years later but I think at that point he really wanted out, to leave Columbus.

Q. Associations were too painful for him?

A. To some extent, yes. He got a very special kind of wife with Josie. And I think there was no recapturing that in any way, to change a lot of things. I was very sorry to see him go. He had become quite a figure in the College of Pharmacy, largely because of his \_\_\_\_\_ unusual man with a wide range of interests. And he was something special. \_\_\_\_\_ in meeting after meeting people would always ask Arthur to say something because he would tell terrible jokes and would always write poems for all occasions. He had some civilizing aura \_\_\_\_\_. I've really not kept

in touch with him over the years. Saw him about five or six years ago in California. I'm not a big writer, you probably \_\_\_\_\_. Probably the last time he wrote me was after publication of \_\_\_\_\_, the outcome of the graduate program. He sent me a poem. But otherwise I hear about him from time to time. He's still involved with the profession.

Q. What is one of your favorite memories of Arthur? Either in class or out?

A. Well I guess I remember Arthur and Josie and their cats, three cats, mother and son, they were all related. They used to wander all over the very unusual house that they had in Rushcreek Village in Columbus. And I remember \_\_\_\_\_, mostly Chinese, his mother was living with them. And cats wandering all over the place \_\_\_\_\_. Arthur and I had a very common background (unintelligible) which made it very nice to talk with him (unintelligible). Too many experiences to mention just in talking. Good conversation about a whole variety of things. Nothing much more to say about that. (unintelligible).

Q. A person we haven't really talked much about is John Nelson.

A. I enjoyed John. We didn't have a great deal of contact. Talked with John. He was on the Pharmacology Board and I was involved with pharmacology (unintelligible) pharmacology group a lot. Strange man growing up and had many, many stories about how great fame had just eluded him a number of times and in a variety of circumstances. John Nelson epitomized for me at one point in his life what can be done with faculty who are basically over the hill. A great deal of talking with universities about what he'd do with older faculty (unintelligible). \_\_\_\_\_ make them teach a lot is not particularly

compelling since they're out of their field, that's the last thing in the world you'd want to do. But I look at the case of Jack Nelson who really stopped being a pharmacologist a long time before he retired.

Q. As far as Dean \_\_\_\_ in the graduate program?

A. Yea, he could (unintelligible) wasn't actively involved in research. And a couple of things there. And one is Lloyd Parks had the good sense to make Jack Nelson the coordinator with the building construction and he really took that on and loved it and worked hard at it. And made a contribution. Somebody had to do it and he did it. But even more impressive to me was the course we developed in drugs in abuse. Jack Nelson is not the world's greatest lecturer, but he was okay. But this man came up with this course and it was a smash, smash hit at the right time. Everybody was interested in drugs of abuse. You had large enrollments in that class.

Q. It was initially taught \_\_\_\_\_ and \_\_\_\_\_.

A. Was \_\_\_\_\_? He talked about some of the sociological aspects and Rupert came down hard with the legal.

Q. But Jack coordinated that course and talked about the drugs themselves.

A. Every drug is a poison. If I don't stop hearing this man, finishing out his career with some kind of dignity. He made a real contribution He's not a hot shot researcher but he's teaching a course that he can teach and it's a value to people. And it must be very satisfying to him at this point in his life, not just molding away in his office, not talking to anybody. I'm a respected member of this faculty who did a job and did it well. I was very impressed with that. Again, I haven't thought about him for years. But when I think

about him, I think about him with the bow tie. He and I got along very well.

(Unintelligible).

Q. John had some problem in his later last few years that he was teaching, which was in the early 70's, when things were getting more rambunctious than they had in the past. And students thought it was difficult to sit still for lectures on the cure of \_\_\_\_\_.

A. Unintelligible. He was very slow, very \_\_\_\_\_.

Q. Very well organized.

A. Yes. (Unintelligible).

Q. Frank Wolfe was another person who took out of the research teaching mold and put into administration.

A. Frank and I been friendly for 25 years. No social or professional contact. I really knew Frank as a chemist. And he was past that when I came in here. But again, a guy who did a job in the college. Fellow who organized all the classrooms and all that stuff. And with Frank, it seemed to fit his personality very well. We never connected as colleagues in any way.

Q. I think the reason I mention this is that Parks seemed to have a gift for placing people where they could do the best job and allowing people like Frank and Jack to excel in an area that is not research or is not teaching. And this again goes back to \_\_\_\_\_, Dean \_\_\_\_\_, although Parks repeatedly said that he did not take anything from Wisconsin as far as administrative style. He felt he was not a good dean in that sense.

A. He made some reasonably good personal choices and managed to deal fairly effectively with those too. (Unintelligible). I think Parks basically made several, very bad mistakes.

Q. Would you give me an example?

A. \_\_\_\_\_ disastrous. \_\_\_\_\_ never worked out, very strange man. But the two mistakes are \_\_\_\_\_.

I don't know anything about Phil Bachman. (Unintelligible). But I was involved on the same faculty (unintelligible). But a very bad mistake. (Unintelligible)

Q. At the time it was probably (unintelligible)

A. \_\_\_\_\_ but lost control. That's what I thought. But he brought together a faculty who had incredible stability. If you look back at that faculty, it was really a very stable faculty.

Q. He continued to try to bring in people from Wisconsin. I was looking through his correspondence and there were some surprising letters. And he tried to bring Tack for example. And some other top people from Wisconsin. Did not lose, I don't think, the respect of friends that he had at Wisconsin because of his ways.

A. And this goes back to Park (unintelligible). I remember we were talking about someone who was trying to do state board secretary (unintelligible).

Q. Here in Ohio?

A. Yea. And Parks was opposing it.

Q. I think you're thinking of the Ohio State Pharmaceutical Association.

A. Yes.

Q. Jack Kirwin.

A. Yea. And Parks sat at the table and he would talk about it and he would say, "You know, should I tell him. There's nothing personal here? I'm just opposing." In fact, I can hear

Parks saying that. And expecting the other person to say, "Fine" and not to get upset about it. I think Parks really believed that. He was a straight shooter. Nothing personal in this at all. I'm just going to do everything I can to see that you get fired. It's nothing personal. It's just a matter of my professional belief. And expecting other people to agree with that and very often they didn't.

Q. That was a very strange episode because when Parks came here initially he was very much involved with the State Association. He was going around the state. He was involved in pharmacy recruiting of students. He won the coveted Beal Award from Ohio State Pharmaceutical Association the second year here. The incident with Jack Kirwin, when the previous secretary resigned to go to the \_\_\_\_\_ Association, Jim Cook, Kirwin was his assistant. And he was the heir apparent. He was not a pharmacist. In fact, none of the executive secretaries of OSBA had been pharmacists. Parks felt it was time to have a pharmacist on. And sent out a letter to all pharmacists in the state proposing this, which politically not a good move. But it is a typical Parks reaction. And the relations at the state association and the college really were never the same under Kirwin.

A. Well, this is getting us close to the time I left the College of Pharmacy. That was a very interesting time. I was getting increasingly upset at \_\_\_\_\_. (End of tape).

Q. Tape 2, side A. You were isolated from the black/white world when you grew up essentially?

A. No, not really. I went to high school in what was a transition neighborhood. It was heavily European immigrant and increasingly black. But I never knew any black chemists. I knew a lot of black kids in high school. Some of them were smart; some of

them were dumb just like the white kids. But I never knew any as I went to college.

There were a couple of kids in our college, a couple of black students in our college class.

I didn't know them well. They wanted to be pharmacists. But suddenly I was working as, some of was in the middle of undergraduate chemistry, working with a bunch of people who had bachelors and masters degrees in chemistry. That was a new experience for me.

Today it would be called role models. That concept really wasn't out there very much at that time. But here were all these people who were very, very good. And they couldn't get jobs anywhere except in this company because of Percy Julian. So that was an important summer for me. It was a summer that was very useful in teaching in the future.

Q. In what sense?

A. In the sense that Cortisone was a booming drug at that point. It was the wonder drug at the time. In that particular summer, Cortisone sales were going up. There was an increased need for this intermediate we were making. And when I first started there in mid-June, the plant \_\_\_\_ made our day. And by mid-July the plant was going 24 hours. They hired many more people and we were on three shifts a day to make this stuff. During that summer, some people at Upjohn discovered a way to do a certain step, putting an oxygen atom at the \_\_\_\_\_ with microorganisms. And by October of that year, that entire Glidden operation was dead. It was just shut down. There was no use anymore. The point through this prolonged synthesis, the whole object of it had been to introduce this eleven oxygen atom and when Upjohn discovered microbiological oxidation that could be done with readily available precursors, it just ended the whole thing. And that was a great lesson to me about how this whole business works. \_\_\_\_\_

very, very short period of time. I don't know what happened to any of those people. I never saw them. I went back to visit and the whole thing was shut down. It was devastating. Well at any rate, I had a marvelous time that summer. I worked in the drug store at night.

Q. Your dad's?

A. My dad's store at night. I worked at the plant during the day. It was hectic and busy and interesting kind of summer. Came back for my third year of pharmacy school and I wasn't very happy about the professional courses. This was old style pharmacy with a IQ elixir and made elixir and fluid extracts and all of those things. I wasn't very good at this. There was very little time the way it was taught, the people who were teaching us, my impression and that of other people in the class had neither scientific nor professional backgrounds. They were sort of old style pharmacy teachers. They didn't know what was happening out in the drug stores. I was going to school with kids who had been working managing stores for years in the Chicago area. I found it a sad situation in pharmacy. On the other hand, on the scientific side things were just booming along. Enjoyed the courses I was taking. I can't remember now in the third year what the science courses were. There were some additional chemistry courses and physiology and things of that kind.

Q. You were taking extra science courses?

A. Not exactly. That particular class took the five year curriculum in four years. We were a transition class. We had an incredible attrition rate for a pharmacy class. We lost maybe

two-thirds of our class along the way. It was brutal. We were always taking three to four lab courses. It was really murderous. But I got through the third year. Everything was doing well and again, Ed Smithsman got me a job in the summer time. And this time it was working in the biochemistry department at the University of Illinois. Ed and I had become more than just student and teacher. We had become close friends and he was really like a second father to me. And his wife, Claire, was also like a second mother. When I got this job working in the biochemistry department, Claire Smithsman, Ed's wife, was the secretary in that department. And we played bridge together at lunch all summer long and we also became very, very close. It was an interesting summer doing biochemical work, which I discovered after that summer that I really didn't like. I was trying to isolate the compound called scalic acid from urine and was placing big jugs out in the mens john and collecting the urine and trying to isolate that stuff. And I wasn't crazy about that kind of work. But again, an interesting experience. Senior year was extremely important. Senior year in the College of Pharmacy then, the class split into a professional option or scientific option and so on. And instead of taking courses like drug store management, things of that kind, there was a very small group of us, maybe ten, who elected what was called the scientific option. And that meant we took three courses. One was a natural products chemistry course with George Webster, which was a descriptive course and I have very few recollections of that. Another one was an electrochemistry course with a man named Norman Joseph. And I'll never forget this course as long as I live. Norman Joseph was a great eccentric. He apparently was a fairly good physical chemist. He had a great deal of difficulty communicating with real people.

He was very interested in music. He gave us an astounding course and then gave everybody a “C” because it was his contention that nobody could possibly get an “A” in his course since it was so difficult, and it would take superb work to get “Bs” and if you just did really good work you would get “Cs.” It devastated everyone in the class. It was really terrible. I remember I had physical chemistry from him also. And during the physical chemistry final, one of the big classrooms lecture rooms at Illinois, he came in and began to play the piano during the final. This was just the kind of thing he would do - a real eccentric. Again, I have no idea what’s ever happened to him. But the course that I really loved was a course in organic synthesis, preparations course, and it was taught by Smithsman and Garian and Ralph Daniels was also one of the people on the staff. I see Ralph Daniels quite often because he’s now an Associate Graduate Dean at the University of Oklahoma. It was a marvelous course, small group, doing organic synthesis, learning about glass blowing, a lot of kidding around in class, close friends from those days, who is still a friend, \_\_\_\_\_ and Matt Merdes. Matt Merdes and I were classmates together all through undergraduate school in Illinois. Matt went on to get a Ph.D. in medicinal chemistry and then went to Kansas and was on Ed Smithson’s staff. And Matt is still at the University of Kansas as a very well known professional medicinal chemist. So it was a very good senior year and during that senior year, for the first time, I began to think about graduate school in medicinal chemistry. And largely at the urging of Ed Smithsman, made application to the University of Wisconsin, which was a school where Ed had gotten his Ph.D. in organic chemistry. And was accepted. And was offered a TA position working with Lloyd Parks, who was a member of the faculty there. So it was

good experience as an undergraduate, but not particularly for pharmacy, because I really never had any real intention of working in pharmacy. But the relationship with Smithson really put me on a few set of facts.

Q. Amazed how you seemed to have fallen into those summer experiences.

A. Well again, Smithson got me both of those jobs and those were interesting jobs for me and they all formed part of this background that said chemistry would be a good, interesting thing to do. Work with interesting people and so on. So I graduated in June, I took the state board. I never really worked much in the pharmacy. I don't think I ever filled a prescription my entire life. I was very disappointed with the state board exam. It was intellectually disastrous. I thought it was a very poor experience. I guess things have changed. I hope things have changed a lot since that time.

Q. It's no longer developed by the old boys.

A. Well it definitely was in those days. It was a classic old boy kind of thing.

Q. Male firm and all those things.

A. That's right. I don't know how you remember some of those things. But I had a fairly low grade point average. I had about a 2.7 or 2.8 coming out of pharmacy school, largely because I had good grades in my chemistry classes and in pharmacology and physiology and so on and terrible grades in pharmacy courses. I didn't get along with most of my pharmacy instructors. I wasn't really interested and I guess I was making that abundantly obvious. I used to delight in getting good grades on exams, so that they couldn't fail me in the course but not paying much attention to what was going on, making it quite clear. But I think largely through Smithson's intervention through people he knew at

Wisconsin, I got accepted. So off I went to the University of Wisconsin in September, 1954. My major professor was a man named William Foy. He was an interesting man. Very quiet, very introspective kind of guy. I can't even remember now the research project I started on. It was something that I wasn't particularly interested in. I enjoyed Lloyd Parks immensely. I was teaching an essay course for him, senior \_\_\_\_\_ essay course, which again was a fascinating experience. Let me go back to the College of Pharmacy. My second year in the College of Pharmacy I had quantitative analysis with a professor Clarke. A man who epitomized the word \_\_\_\_\_ to many of us. He was prissy. He rarely smiled. He made us memorize things word for word. We were not allowed to use improper English in answering questions in class. I remember things about him to this day. Hated him. Most of the class absolutely hated him. He made us to logrhythms. We didn't want to; he made us do it. Three years later I found myself facing a class in drug essay, which had a lot of quantitative analysis in it. And discovered that I knew all of this; that it was burned into my brain in letters of fire. I still remember the definitions word for word today. And as soon as that quarter ended, I went back to Illinois to thank him. He forced us to do things systematically and in the right way and that's there forever In fact, that stuff really stayed. An interesting demonstration to me also that I think about years later about a super teacher. And what the time period that is to make that a valid evaluation. I think several years have to go by before you can evaluate teaching, particularly at the undergraduate level.

- Q. Had you been asked to fill out a form, he would have been a terrible instructor.
- A. Oh terrible! At that time he would have been absolutely terrible. He would have been the

worst teacher I ever had. And three years later, I found that he was really one of the best. Because he wouldn't accept mediocrity. He simply wouldn't. You had to do things and do them right and well.

Q. Now how would he compare to Lloyd Parks as an instructor?

A. Parks was a much warmer person. Parks was generally highly respected, very, very well thought of. Clarke was not a researcher; Parks was at that time. But there was no nonsense with Parks. He was very fair to all of the students.

Q. Very demanding.

A. Absolutely. No question about it. And a super trainer of TA's. We were very independent. At that time at Wisconsin there were a number of temporary buildings on the University campus. And my first teaching assignment was in a building called T6, which was on the corner of Park and University. Big, old Quonset hut. My first day going to class I was scared to death. That was the first thing I did as a graduate student. I had a 7:45 class to be TA in before I had done anything else in graduate school. First day. And there a lot of veterans going to school at that time and I was thinking as I walked to school, that many of the people in class since they were seniors, would probably be older than I was. And what would I do if they didn't want to do what I told them to do. If I said, "Do this experiment," and they said, "No, we're not going to do it." But it didn't work out that way. We got along very, very well. The \_\_\_\_\_ man in that building was a marvelous, charismatic character in Madison, Wisconsin at that time, named Harry Alexander. And he and I got along very, very well. He was also known as the Swami. He had a program on local television I guess, where he put on a turban and predicted

football scores. He was a marvelous character. Had a great time working there. But every day, at some time during the lab period, Lloyd Parks would walk down to the pharmacy building and you knew that he would be there all of the time. Not interfering, just walking around talking to students, talking to you as the TA. We would meet on a regular basis with him. We would give our own lab exams, but he would talk to us about that. And we would grade exams with him. Proctor and grade class exams with him. And I got to respect him greatly during that time. But again, major significant events takes place now in my first year in graduate school. I'm working with Bill Foy and really not getting anything at all. And one day in the spring quarter, walking through a hall in the pharmacy building, I come upon Ed and Claire Smithsman. Big surprise."What are you doing here?" They said, "We'll talk to you later about that when we get together." So I invited him them over to our apartment. And at that time, Ed told me that Bill Foy was leaving the University of Wisconsin, which I had not known before. And that Ed Smithsman had been hired at the University of Wisconsin. Of course, my reaction was just utter delight. I decided obviously at that time to drop the research project that I had been doing with Foy. I wasn't concerned about losing the time. I wasn't really interested in the project. And as soon as Smithsman got there I started with Ed Smithsman. He took over some of the graduate students who had been working with Bill Foy. I was, I think, the first student who started, who really started the whole project with Ed. There were people like Bruce Scabbert, Fred Block, Bob Mode, and several other people who had started with Foy. But I think I was Ed Smithsman's first.

Q. Now he took some students with him?

A. Yes, he picked up some students, he finished some students off who were Foy students and continued to work on Foy's projects. But then Ed finished them off their last year. Of course, as his graduate students, we became even closer than we had in the undergraduate relationship. And Ed and Claire Smithsman were remarkable people. They had no children of their own and always viewed Ed's graduate students as family. And the students felt that way very strongly. So there were countless, countless parties at the Smithsman's sitting around drinking beer and singing and talking chemistry constantly, constantly. Ed had that kind of effect on people. He was so enthusiastic and so interested, that you talked about it all the time. I had a very, very good graduate experience. I loved graduate school. Worked hard, took courses from some of the finest people in the country, particularly in the chemistry department. People like Sam McElvain and Bill Johnson, just a superb group of people. And a bunch of first rate colleagues as graduate students. And Smithsman, Aguchy was on the staff. I'll never forget my first year in graduate school, taking a course that had to do with analytical techniques used in pharmacy research. Took it really from a man who was there for a very short time by the name of John Neptune. He was there for about two years and then left. There was a tax course. And I'll never forget this: first year graduate student working in the daytime in this analytical course and screwing everything up. You found in his course that when he did things for the first time, you usually don't do them right. So you end up coming back every night and you would do it over again. And I was in that laboratory at 11:30 one night and this man walked in. And I realized it Tachaducy, who was something of a demi-

god there at that time. And came over and asked me what I was doing, talked about how this worked and so on and so forth. It was something, a technique that Tach had done some of the very beginning work. It was very impressive to me. It was another thing about Wisconsin by graduate school. Here at 11:00 at night is this esteemed faculty member who is working and is interested and walks into the laboratory and says, "What are you doing? How is it working? Very, very important concept there. Graduate school at Wisconsin was a really great experience from all points of view. Graduate students had a baseball team. Ed Smithsman played first base on that team. It was a good thing We lived and breathed and ate chemistry. We were involved all the time, had a lot of fun. There was a lot of kidding around. A lot of work got done. It was a first class experience, mostly due to Ed. He was a marvelous professor.

Q. Did the pressure for research was as much as it is today?

A. On who?

Q. On the professors.

A. There it was. There's no question about that. Oh yes. I think that's the long standing tradition at Wisconsin. Parks left in 1956. \_\_\_\_\_ for two years and in '56 he left to become dean. But yes, Parks was in publishing research. Not everybody published. I guess there were some people on that college faculty who were sort of a little passed it. Lou Bussy is the name that comes to mind. He was a respected figure in pharmacy for many, many years. But not really doing quite as much anymore. Smithsman and Aguchy were clearly the research stars. Gus Limberg was on the faculty then and had to do little stuff. There was a new ear coming in. Neither Smithsman nor Aguchy had degrees in

pharmacy. But they were people with a degree chemistry, not physical chemistry, who had chosen to come into the pharmacy and medicinal venue and they really shook it up. They brought first class outside science to this. And they changed the nature of graduate education in their disciplines. When I first came there working for Foy, I was told that most of the Foy students took all of the advanced organic courses, but you didn't have to. Smithsman said, "I don't care what your minor is. Anyone who works for me takes all of the advanced organic courses. That's just what we do with chemists here. We do that." It was a different philosophy. Aguchy was doing the same thing. And the other thing that was fascinating then, there was obviously a point to be made. Smithsman had gotten his graduate degree at Wisconsin. This major professor was a man named \_\_\_\_\_ Van Tamlin, who was then the great organic chemist, who was on the faculty there in the organic department. Smithsman used to tell us every quarter that he had money that stayed with Van Tamlin, that we (Smithsman's students) would get better grades in the organic course than Van Tamlin's did. And we worked their tails off.

Q. For his bet.

A. Yea. Of course there was more to it than that. There was a real sense of pride involved. We as pharmacy students, as medicinal chemistry students, were trying to make a point that we were equal to those other guys or better, as chemists. Just as chemists. We wanted to compete with them as chemists. This was a very important point that has to be made over and over again in derivative fields like medicinal chemistry or any fields in professional areas that are based on the classical.

Q. But Ed Smithsman could teach organic chemistry to undergraduate pharmacy students

that made sense to them as pharmacy students.

A. Oh yes. He was a very demanding teacher. He came to it with a great deal of preparation and enthusiasm and expected his students to do the same thing. A lot of students didn't like that at all. But he had a tremendous effect on my teaching, everything that I've done in the profession. Just an incredible man. I didn't have too much contact with too much of the rest of the pharmacy faculty there because as I said, Smithsman's group took almost all their course work in the chemistry department. I never took a graduate course with Parks. I never took a graduate course with Lumberger. My graduate courses were all in chemistry with one or two exceptions. I don't even think I took a graduate course with Ed Smithsman. We had very few graduate courses in medicinal chemistry. The idea was, you take the chemistry graduate courses and medicinal chemistry is what you do in your laboratory.

Q. Your research project had something to do with?

A. Oh, that's another thing. I forgot about that.

Q. Corn plants?

A. Ed Smithsman had formed a research relationship with a man in the entomology department by the name of Stan Beck. Stan Beck was the great insect physiologist and an unusual man, in that when I met him, he was a man about 35, who had been stricken with polio as an adult. He operated in a wheelchair. He had some use of his hands. No use of the lower part of his body. Very bitter man. He was very bitter. He never got over the bitterness about why this would happen to him. But there nothing wrong with his mind at any time. He continued, and I think still continues, to do productive work in entomology.

And he was just starting to be interested in chemical factors in plants that affect insect behavior one way or another. Either the growth of insects or where they lay their eggs, whatever. And one of the things that came out was that the European corn bore seems to be affected in terms of what kind of corn the larvae grow up on. The strains of corn and the age of corn and so on. And that led to the supposition that maybe there was something in the resistance strains that made them so. Ed asked me if I would like to work on this project. It wasn't something I was terribly interested in. But Ed was a terrific salesman for natural products chemistry. And said, "Most of it's going to be structure work and synthesis. You just have to isolate the material." Little did I know that that would take an enormous amount of time. The way we did it then is I actually planted corn out in the field, grew it. I'm talking about being out there with a hoe and weeding.

Q. Little red hen?

A. Little red hen, exactly. Collected it, we collected the young plants. We weren't interested in the corn. Collected the young plants, dried the leaves, extracted them worked for, I don't know, a year and a half at least, ending up with sixty milligrams of this white crystal material, which we then ran some experiments on and postulated a structure for it, and then synthesized this material, and it turned out that indeed that was the structure. While I was doing that, the structural type, this is a compound called benzoxazolanone, the structural type became sort of interesting, and so I synthesized a variety of substitute benzoxazolanone and studied their ultraviolet spectrum. And my dissertation was two parts: one was the isolation of the substance of corn and the other was an ultraviolet study of some substitute benzoxazolanone.

- Q. Sounds like a very practical type of research from a land grant college.
- A. Yea, no question about that. A lot of people followed up on that and in fact I talked to a man no more than a month ago, who was in doing his \_\_\_\_\_ on entomology. And it turns out that he's involved partially in that kind of work. And he spent some time at Wisconsin and he was familiar with our papers and it's always nice to find that.
- Q. That has resulted in a new strain of corn?
- A. Not as far as I know. It's just a question of trying to understand what's happening. I don't think it's had any agronomic effects in terms of breeding new strains. But we attempted to find out why certain things happen and this was a classic example.
- Q. Did you have any impressions of comparing Wisconsin and Illinois as far as quality of undergraduate education or were you so tied up with the graduate work, that you didn't have much of a chance to do that?
- A. Of course, I TA'd for a while and I taught organic chemistry one summer for Ed.
- Q. There was a lot of that going around in those days as I recall.
- A. What? Someone teaching?
- Q. Because students would flunk during the regular academic year.
- A. I think they were both pretty good schools. My first hand impression of the professional side of pharmacy school at Illinois was very poor. And I didn't have much of an impression of it at Wisconsin. But the other stuff was usually very, very good. I found the science, particularly the chemistry, good. At Illinois, it was a much different situation than the free standing medical center. Whereas we didn't have the rest of the university to draw on. We took our physiology and our microbiology and pharmacology from the

pharmacology department. There was only one pharmacology department at the University of Illinois Health Center and it was in the medical school, but it taught out to all the other departments. And they had a stupendous pharmacology department there, just an incredibly good pharmacology department, headed by a man named Paul C. Pfeiffer. Again, a great name in American pharmacology. And I had a marvelous four year pharmacology course taught by people who were first class scientists and publishing scholars in pharmacology. They really knew where they spoke and that was the equivalent sort of to having all this first rate chemistry in the chemistry department at the University of Wisconsin.

Q. Pharmacology at Wisconsin was also taught in the medical school.

A. Yea, but you see I wasn't aware of that. I did not have any contact with that when I was a graduate student. But the pharmacology department at that time at Wisconsin was not the \_\_\_\_\_ that it has been more recently. Just a first rate department. All these things were very fortunate for me. I happen to be in the right place at the right time. I had superb pharmacology. I had superb chemistry courses. I had superb medicinal courses. All of that came together in getting me interested and keeping me interested in medicinal chemistry. We're coming now to the end of the graduate career I guess.

Q. I wonder whether you had an impression of Dean Youell?

A. Dean Youell was, I think, generally very, very well liked by everyone. But the first thing I remember about Dean Youell was he had a habit of washing his hands, rubbing his hands together all the time. But a very, very pleasant, very delightful man, who, in retrospect, I would say made that school by the choice of people that he hired. He took some unusual

steps. The hiring of Ed Smithsman and \_\_\_\_\_ Yaguchy were unusual in pharmacy at that time as far as I knew.

Q. Because they didn't have pharmacy background?

A. Because they didn't have the pharmacy background. That's right. He went on then to hire other people who didn't have pharmacy backgrounds, one being Morris Cupsher, who was brought in while I was in my third or fourth year of graduate school. But he made the University of Wisconsin graduate pharmacy program, I think, the finest program in the country. It's been amazing to me to see what's happened to the people who came out of that College of Pharmacy, particularly in med chem and in pharmaceuticals during that period. The people who came out from mid-50's to mid-60's. This was when Yaguchy just had dominated both the industry and pharmaceutical education. The word pharmacy deans came out of there. This is when Tosky was there. The whole pharmaceuticals field came out of there. And then spread out to places like San Francisco University of California and Soonie and so on. But the real beginnings were right there at Wisconsin. And so there was a great deal of ferment there and it was a marvelously exciting time.

Q. This was the second generation after the Crimmers generation of chemists and phido-chemists.

A. That's right. Really a fantastic effect on pharmacy. And you have to lay some of that at the feet of the dean. And say that the dean, for whatever reasons, decided to hire these people and let them do what they wanted to do. And I think Youell had the good sense to do that. That's something that happened that was very, very good for pharmaceutical education. Another memory I have, incidentally, is of a close relationship in my last year

with Glenn Sonnedecker. That relationship being primarily because we both had the same kind of audio equipment. And my music.

Q. You kept up with your ...

A. No, I haven't kept up any kind of correspondence with him. I did for a little while but I haven't in the last 15 years.

Q. Did you keep up with your music? Bassoon?

A. Not with the bassoon, but certainly with the audio and record collecting and so on. \_\_\_\_\_ was a constant threat in my life. I can't really think of much more about Wisconsin except that in my senior year I was contacted by Lloyd Parks and asked if I would be interested in a job at Ohio State. And I was very interested.

Q. You were interested in getting into an academic setting?

A. Yes. There was never really much question in my mind about that. I had no particular interest in industry at any time. Always thought I'd go to a university. And this is the only job I ran for. I came down to Columbus in February. It must have been February of 1958, something like that. Interviewed, met the faculty here, gave a presentation. And soon thereafter was offered a job and took it.

Q. Your first impressions of Columbus and Ohio State and the College of Pharmacy?

A. Well the only thing I remember vividly is that it was unseasonably warm here which I didn't know. And I was coming down here from Wisconsin in February. I've always liked to play golf and Lloyd Parks is a golfer. In fact, he and I have played a few times in Wisconsin. And he was driving me around town and we drove past the Ohio State golf course and it was filled with people playing golf. And I had the impression that Columbus

must be like Florida, to go play golf here all year round and so on. Didn't realize how atypical that particular day was. Didn't have too much impression of the faculty. I guess the major impression I had was of Arthur Tye. He seemed to, there was a feeling of some simpatico there and it later turned out to be very definitely the case. But we hit it off. Met Lloyd Harris and a variety of other people. Frank Bope. But had no, I can't really remember impressions. But soon after that I was offered the job and accepted. And finished my degree at Wisconsin in August and came down here in September. One of the things that was of great interest to me is that I was one of two people that Lloyd Parks hired, who started that September. The other was Dave Gutmann. And Dave had been one of Tapagucy's graduate students. Dave finished up about a year or two.

Q. These were the first two people that Parks hired as dean.

A. We were the first two people that Parks hired. David finished a year or so before I did and was \_\_\_\_\_. And so Parks told me that he hired Dave Gutmann and I got in touch with Dave. Dave and I had never been friendly but we certainly knew each other as graduate students. There was a lot of stratification in the new pharmacy building at Wisconsin particularly. But when I started at Wisconsin, at the old everybody was all mixed up in terms of lab placement. So I was in a laboratory. I can remember most of the people but Dave Gutmann was one of the people in that laboratory, even though he was working for a different major professor, Harry Kostenbauder, who is not at the University of Kentucky for years. He was in that laboratory. The other is Ned Feldman, who doing something pharmacy associations now.

Q. USP.

A. In that laboratory. A number of those people. We moved to the new building. We were all on different floors. The med chem people were in a laboratory on the third floor and all the people in our laboratory were Smithsman's people. And tax people were up on the fourth floor or fifth floor. I can't remember. So we didn't see each other too much after that. But Dave and I knew each other and we were quite pleased to be here, particularly because of Lloyd Parks. We didn't know anything about the school but we both knew about Lloyd Parks and respected him highly, and were delighted at the opportunity to come. How are we doing on the tape?

Q. We've got a few more minutes on this tape.

A. Okay. The first year here as a fascinating one. Dave Gutmann and I were the first two people hired on twelve month appointments in the College of Pharmacy. We were told by Parks that our job was to teach, do research, obtain outside funding, build the graduate program, and so on. And that we were being paid to do all of that. He made it very, very clear that actually doing research and developing undergraduate programs was part of our job. We were on duty twelve months.

Q. Did you have an impression that the research program at Ohio State was dormant at that time?

A. Pretty much so with the exception of Jack Dill. Jack I had met incidentally when Jack, my last year in graduate school, Jack was at the University of Wisconsin.

Q. On a post-doc?

A. On a post-doc for that year. Not all that last year, part of that last year, and in fact when I came here to Ohio State, Jack was still at Wisconsin. My first teaching here was

pharmacology. I taught pharmacology before Jack in the autumn quarter. But Dave and I were both told that we were expected to do personal research and get the whole thing going. So we shared a laboratory down at the end of the hall in the old pharmacy building on the first floor. The laboratory was taken over from Lloyd Harris. Not without some protest, but the dean just went and did it. And we set up the lab and we worked. We spent a lot of time in that laboratory. Had a coffee pot going all the time. It was a good time. We both began writing proposals for grants. In those days, it was reasonably easy to get grants. I made some contacts fairly quickly with people in the entomology department, sort of parlaying on the stuff that I had done as a graduate student. And eventually developed a joint research effort with two people in entomology. Developed a proposal with two people in entomology here, Frank Fisk and Ralph Davidson, and we actually did, were funded for NIH for about six years, on factors in bean plants that affect the bean beetle.

Q. That was succotash type of ...

A. Yea, with the beans and the corn yea. But there was obviously a push to get much more research going here.

Q. You did not have the equipment at the time?

A. We had virtually nothing. Don't forget, the first year Lloyd Parks got a very small amount of money for us. I can't remember. It must have been \$3,000 and Dave and I made a decision to get a used infrared spectratometer and a used ultraviolet spectratometer, just so we would have something because there was nothing. There were no modern pieces of equipment whatsoever.

Q. Tomograph and things like that I suspect?

A. People were smoking drums and doing that whole business but really very, very little going on. With the exception of Jack. Jack always was funded and Jack always was doing research. But I don't think Arthur was funded or Jack Nelson and I'm pretty certain that none of the people on my chem had any funds or were doing much research. People used to talk about how much horehound we put in cough drops and things like that. But I mean that's really not what we were ... we were coming out of a different school and looked at research in a much different way. Had terrific arguments with the older members of the faculty about the graduate work. Terrific. People like Lloyd Harris. Most particularly Lloyd Harris and \_\_\_\_\_. Looking at Dave and I coming into these two areas and having no departments, but really Lloyd Harris being sort of the senior man in chemistry. \_\_\_\_\_ being the senior man in pharmacy. Dave and I were related to each of these two people in that way.

Q. And they were doing the very practical compounding or research?

A. The research was very pharmacy oriented. But in terms of the graduate curriculum, every graduate student had to take some course work in every area of pharmacy. In chemistry, in pharmacy, in pharmacognacy, in pharmacology, and maybe even in pharmacy. But I don't think in pharmacy. But all the other four. And we said, "No, we're simply not going to have our graduate students do that."

Q. The rationale was to build the ...

A. The total pharmacy type graduate student and we said, "No, we're simply not interested in that." I said, "My students will take the majority of their course work in the chemistry

department here. They will not take any of these courses in pharmacognacy, pharmacology or pharmacy unless the student and I would decide that that suits the student's program. But each student's program will be designed specifically for the student, with the exception that they will take all of the chemistry courses. Dave did similar things with his students. Most of Dave's students took most of their courses in physical chemistry and in mathematics. It was a bitter struggle with two young assistant professors really fighting, except that we had total and unqualified support from the dean, all the way down the line, and he made that very clear to us. And so we just pushed and pushed and pushed.

Q. What happened?

A. We won. That old style plan where every student had, that was simply abolished. We won. The other thing I vividly remember in that first year is after teaching pharmacognacy for two quarters, which was a big kick for me, because as I often told Jack, I taught that probably differently than it's ever been taught before or since. Taught a lot of natural products chemistry. And incidentally, taught that to a class who were juniors at that time. That was my first class in the College of Pharmacy. But it was a class with which I developed very warm, friendly relations after a while. Didn't know what was happening to them the first quarter. I remember one of the most outspoken of them who challenged me all of the time was a crew cutted Phil Rogers, who was a hot shot student in that class. But Phil was in that class, Jonathan Corrow, there was a whole bunch of people who have gone on to do a variety of things in pharmacy. But the unique thing was that I had two quarters that year. And this next year they became seniors and I

was teaching them, I had then taken over the medicinal chemistry course which at that time was a senior, or a sophomore and junior it may have been. But this was a class that I had for four quarters, which was unusual. We really got to know each other quite well. The classes were relatively small, 35-40 students. I enjoyed them immensely and we had a lot of good times. But research began to get established. Had some graduate students. We established our own identity in the college. Parks was absolutely committed to a strong research effort in the college. And we worked our tails off. We worked day and night. We taught, we spent time trying to be good teachers. We did our own research so we could publish. We wrote grant applications. We did everything. It was stimulating. It was exhausting. It was a good time.

Q. What changes were taking place?

A. Tape 2, side B. ... finished my two year term in '67. There was an NIH rule that you had to be off for four years before you could be reappointed. So I was off the committee between '67 and '71. However, during that time I was used by the committee as an ad hoc reviewer and if my recollection is correct, I never missed any meetings, just as if I were a committee member, because I was doing site visits constantly and going to \_\_\_\_\_. And then in '71 I was appointed to a four year term on the Pharmacology/Toxicology Program Committee, which was a larger committee that took in the Training Grant Committee, but also dealt with various kinds of research grants, proposals, and post-op proposals, and so on. I served a four year term there, again doing lots of site visits. Quite a bit. All of that was a very, very good experience. All of that made me very interested in national scene kind of \_\_\_\_\_. I spent a long time. We talked about (unintelligible) ...

in and out of Washington three times a year and running around the country doing site visits. And I found it extremely stimulating, to meet colleagues all over the country. I would imagine I might visit every medicinal chemistry program that was in existence at that time. Plus pharmacology program. Chemical pharmacology program. Talked about research, talked about graduate education because basically, for most of these programs, what you were reviewing was the suitability of a place for graduate training. And so you were looking at more than just the research. You were looking at curriculum; you were looking at faculty; you were looking at the plant; whole bunch of things.

Q. Did your own personal views of graduate education change as a result of it?

A. To some extent. You couldn't do a site visit without coming back and saying, "They do something very interesting there that we never thought about start doing and we ought to start to do it here." Or we're really on the right track with what we're doing. People who tried the other approach that we talked about and failed, failed, failed. We did a lot of impressions. It was good to understand how people approach it. So you could color my view of graduate education (unintelligible). You have to have good students and you have to have good faculty to do research. The rest of it is sort of immaterial. At atmosphere, an attitude. That's in places where you have lots of courses, \_\_\_\_\_ courses, different kinds of courses. But the places that have the best programs were the places that have the students who were, well I've expressed this simply in other ways more recently, and that is that the best schools are the ones that are the hardest to get into and hardest to stay in, for either students or athletes. And that's a very simple statement. And I think it holds true. Some of the schools that have \_\_\_\_\_ students have high attrition rates

or even worse do not. A lot of times \_\_\_\_\_ the faculty \_\_\_\_\_. And our program here in medicinal chemistry, at one time when we were pretty firm on the point that any student who has to study to get B's in any graduate course, is not going to do well in our program. Because the \_\_\_\_\_ are too great for that. To understand that students may have to study to get A's. But if they're really not bright enough, then don't, \_\_\_\_\_ B's with minimal work, then you're probably not going to make it in the program. (Unintelligible). That's sort of the approach. Very high expectations. So that whole experience in NIH was first class, not only for all these things, but it put me in contact with a number of first class people around the country, a variety. That's always good. Good mines. (Unintelligible)

Q. Did you have a feeling at that time that you might want to get into an administrative type job?

A. Very much so. Yea. As we got into the late 60's and early 70's, I became very interested in some kind of administration. I wasn't really sure but I knew I enjoyed what I had been doing in Washington. And I also knew that I really enjoyed all the committee stuff I was involved with in the college. Plus, at that time, talking about late 60's, I became a member of the Graduate Council. And I liked that tremendously. That was probably another, that was a very major point in my life, was being inducted on the Graduate Council. Because that was my first real contact with university administrative activity. And I liked that a lot. I talked to Parks early in those years about my interest in administration and he didn't see it at all. He talked about my messy desk and all those things and didn't see it. It was a very depressing interview. It took me a long time to

realize I was right and he was wrong. But for a while I'd go talk to Dean and say, "You know, I'm really thinking about this. Do you think I have the stuff?" And he would say, "No. You really shouldn't do this."

Q. Think that was his self protective interest?

A. I don't know. But I remember I was very disappointed. And the more I thought about it, I'd say to myself, "I think I know what I want."

Q. You must have opportunities for pharmacy deanships?

A. Yea, every once in a while. I was interviewed at Buffalo at one point. Must have been very late 60's. I have interviewed for very few positions. I've never really been interviewed for the sake of interview. I've only interviewed for positions that I felt I would take if I went all the way. And at that time, again being very interested in administration and the deanship at Buffalo came up and my name was in. And I went out there and interviewed. And Mike Schwartz was then \_\_\_\_\_. When I came back from that trip, I was fairly well convinced that I didn't want to be a pharmacy dean.

Q. Why is that?

A. Well, for a number of reasons.

Q. Buffalo came to have some of the advantages that Ohio State did not, as far as the medical center. And as strong graduate program.

A. No question about that. They wanted a dean to come in there and build up the professional program without detracting from the other part of the program. \_\_\_\_\_ Murray built a very strong science program. And they wanted to bring in the professional side. Well, as I mentioned before, I had never filled a prescription in my life. Professional

pharmacy was not an interest with me. Further, in the very late 60's, I began to become disillusioned with a lot of the pharmacy and with how I was teaching related pharmacy. As students appeared to get worse and worse and more and more cynical and less and less interested. I had great difficulty sustaining my own enthusiasm. I used to really believe that the stuff I was teaching in medicinal chemistry is something that pharmacists should know because pharmacists should be educated people who understand what it is they are using and how these things work. And students would say, "I don't need to know this stuff to be a pharmacist. My boss doesn't know any of this stuff and he makes \$60,000 a year," or whatever it was in those days. Nobody needs to know this stuff. It's of no use to anybody. I found that very disillusioning. So looking at being a dean of a pharmacy school and thinking that a good deal of time would have to be spent on relations with the profession, I thought, "That's really not what I'm interested in doing." So I went on working in the college, running around the country, doing sight visits which I liked. I think those were the same years that I was involved with the AACCP a lot. And research, my own personal research, tapering off to virtually nothing. I was less and less interested in that.

Q. Still in a pool undergraduate teaching load?

A. Oh yea. And so I taught graduate classes and a variety of classes. I taught pharmacology, I taught chemistry for pharmacology students. I taught a whole bunch of things, culminating in teaching the introduction to pharmacy course to freshman. I volunteered to do that and Parks was ill for something. He used to teach a course. I taught pharmacy for him for one year, acted as course coordinator.

Q. How did you enjoy that?

A. It was sort of interesting and different. I had as an assistant a guy by the name of Pat McKircher. And Pat and I got along very well. We brought in a lot of guest speakers. Some worked well; some didn't. It was difficult to each. I've always found low level courses, introductory courses, difficult. Much more difficult to teach than high level courses because you have to establish something with the student and you have to work very hard at making the stuff interesting to students. High level courses, generally the students who come into high level courses are \_\_\_\_\_ in the first place and so it's not quite so difficult. But it was okay. I was doing it partially because I was generally interested in administration and saying, "Would I want to do this kind of stuff? Can I do more than teach just medicinal chemistry? Can I branch out and do a variety of things?" I did it once and that was enough.

Q. Some people have said that we ought to have full professors teaching freshman courses and TA's teaching senior courses because try to get the students turned on to education early on and once they pick up good study habits, then in the more concentrated courses they probably could be taught by TA's.

A. Makes good sense. I've always felt that the best people to teach freshman courses are experienced professors, largely because I think most freshman courses you're teaching more than subject matter. And you've got to connect that with some kind of breadth and a wealth of experience. One of the things you do a lot in freshmen teaching, I've found, is that you have to be able to come up with new ways of explaining the same material. And you have to do this constantly because you look at your class and you're explaining it and

no one is getting it. So you say, "Okay, let's look at it this way." And come at it from another point of view. And I think experience is a great helper in that. You looked at that stuff yourself for fifteen years. You're in better shape to teach it. I know that one of the courses that I enjoyed teaching, almost more than anything else outside of chemical pharmacology, was a course at 430, introduction to medicinal chemistry. This was my course. I wrote that course. I argued \_\_\_\_\_ great length about it and we were supposed to alternate teaching it, and I hung on to it just as long as I could, because I believe I had the right way to teach it, and I knew Don would change it, which he did.

Q. 433 now.

A. Well what made me, I don't know, it was something like that. But that course was all based on what we were talking about the other day. In other words, using chemistry having to do with the pharmacy part of things. From the strange way. That the premise in that course was that if you understood basic facts about organic functional groups and you understood the basic ways in which various groups of the molecule could affect other groups, what you had was the tools for predicting what a compound was like using a variety of circumstances. Chemically, physically, biologically.

Q. That time of information, reaction of the functional groups, that is the type of information you would say that students should have memorized cold?

A. Well students coming to that course came from two quarters of organic chemistry. They should have known that. In other words, I would ask questions like, "Take the \_\_\_\_\_. What is the one single property, more than any other, that you associate with the \_\_\_\_\_?" And the answer to that question is, "Hydraulically." Esther is hydrolyzed.

Now that says then, if you can identify, you can look at a drug molecule and say, "Oh ha, there is an Esther linkage there." The first thing that should be in your mind is hydrolytical. And that's important. Because that's stability. If that's a drug and an ester, and hydrolyzed, chances are it's going to have far different properties from \_\_\_\_\_. So the next question is, "How easy will it be to hydrolyze that? Or how difficult will it be to hydrolyze it?" And you can tell that by looking at other things in the molecule. You can make educated guesses.

Q. Really a reasonable way.

A. Absolutely. The other thing I thought about there in the same way was a concept called PKA, which has to do with how drugs disassociate. PKA is what the whole thing is about in the body. Someone takes a drug and the drug bounces along and it goes from an \_\_\_\_\_ media to a lipid like media to an \_\_\_\_\_ and keeps crossing cell walls and so on and so forth. And the whole thing with the \_\_\_\_\_ is how easy it is to ionize or not ionize. Because to ionize things that are soluble \_\_\_\_\_. Very basic equations that give you a relationships. For example, 90% of the drugs that are used are basic PKA's in the body to 11 and there are good reasons for that if you think about how the body works. And we talked about that. So I would have these students predict things. Again, good students. Really ate it up. Because what it meant is that if you really understood what we were talking about, you didn't study for exams. There was no point in studying for exams. I gave the compounds that they had never seen before. First exam was ten compounds, complex molecules, cortisone and stuff like that. And asked them to write a paragraph describing its properties. I was teaching that course by myself, was a

three credit course. The first class period I added an extra period for a recitation section.

Split the class into four small groups and handled all the recitation sections myself.

Worked my head off in that course. Told the students right at the beginning, “No curve.

This is a skill and you’re going to have to learn this skill.” Graded all these papers. I had 80 students in the class.

Q. Essay questions?

A. Essay questions. Graded all those papers. Talked to each student individually about the exam. Got an SAT in about the 8<sup>th</sup> week. Good solid SAT instructor. And I gave two tough exams and a final and I failed I think 25-30 students in that class. And shockwaves went all through the College of Pharmacy.

Q. Parks must have flipped out.

A. Students, delegations went to Parks and I had documented everything right down the line. I had spent all this time; I had graded all these examinations and met with every student individually. I got them the SAT form. I kept telling them, “If you don’t do this at the 60<sup>th</sup> percentile, you’ll fail this course. No curve.”

Q. What happened?

A. The grades stuck.

Q. Why do you think that happened, that so many of the students failed?

A. They simply didn’t believe that I would do this. They simply didn’t believe that I would hold to a set of standards. We’re talking about 1970 now. Students were getting grades to do virtually nothing. And I said, “Not in here. You’re really going to have to do

something to get the grade.” I’ll never forget overhearing students saying, “I never thought he’d do it.” And a group went down to Parks. All they had to do was talk to me. And Parks was a chemist at one time. I showed him my exams. I said, “I expect students to answer tough questions like, “What is the structure of \_\_\_\_\_?” And he asked them some questions and he was very angry at first. And then he backed off and let it stand. I will never forget , Ted Sokolosky came up to me and shook my hand after that. He said, “Didn’t think anyone would do it. But someone had to do it to make a point.” And I must say that that course was much easier to teach. The word got out very quickly that you really have to do this. If you want to pass the course, you really have to study and learn the stuff. And that’s another big lesson I’ve learned in education. I remember, go back a few years, early days in the College of Pharmacy, early 60's, a guy named Sid Regalman. He lives in California, big name in pharmaceuticals. He came to visit us and did a lecture and so on. And he gave a talk to our faculty on the curriculum and he lives in California. And I’ll never forget this. He mentioned calculus. Wait a minute. We can’t get our students to pass algebra. We have this hokey math requirement here. And the students have difficulty with it. How do you get them to pass calculus? He said, “It’s required. We don’t accept them if they don’t pass calculus.” And there was this sort of hush that fell over the room. See, we were accepting students even if they didn’t do very well. We were taking anyone who could crawl basically. California could be very selective. They said, “Look, calculus is a prerequisite here. If you don’t pass calculus we won’t let you into our program. Period.” Once that point becomes clear, the students who want to get into the program pass calculus. That’s a great educational point that has

to be made all the time. If you're really serious about it and say to the students, "If you want to do this, you have to do that," and you stick to it, then the students do it. After that first time, 430, 432, whatever it was, it got much easier. Students studied, worked hard. They did well in the course. Variable course. I always liked it. But talking about PKA in that course, I didn't understand what PKA was about until I was about eight years out of graduate school. Concept I used for years. But eventually we began to think about it and suddenly a lot of relations became clear. Back to this point, of seeing that professors are really who should be teaching the lower level introductory courses, because they have that experience. They've thought about that concept for a long time and they could deal with it in a variety of ways, to help explain to students. Fresh graduates, the first question we used to ask on general examination to people after their Ph.D.'s, talk about things like PKA. They hadn't thought about that since they were in freshman chemistry. Most of them didn't have the foggiest idea of what it meant, what the implications were and so on and so forth.

Q. Were students who came to your course, 433, reasonably well prepared for organic?

A. No, it was terrible. There were three organic courses here at that time. Part of our curriculum revisions back in '69, which lasted for only one year, was to have the pre-pharmacy students take the ten major organ. It was devastating. We lost a lot of them. Parks could not deal with it, just could not deal with it. And he pushed the faculty to change back to the two quarter course. Those kids that made it through three quarter course did beautifully. Not just in med chem. It was a screening process. And those kids that passed that three quarter course breezed through the College of Pharmacy. A lot of

very, very good kids. They were some of the best students we ever had. Simply brighter than most of the other people. And that course had done that in a way. If we had stuck to that. Anytime you make a change like that, you upgrade standards, you're going to get attrition. But if you hold it, if you stick with it for a few years, the same thing takes place. Pretty soon the attrition will be back to the way it was before. Once the students realize yea, we've got to pass this to get in, then they'll pass it.

Q. Same thing I suppose could be said for the physics requirement and math.

A. Absolutely, absolutely.

Q. I think pharmacy in general tends to have the problem we touched on earlier in that it tries to be not only a professional program but an undergraduate program. And I remember discussions in the faculty meetings of trying to make the well rounded young man or young woman.

A. Well I felt very strongly always in those faculty discussions that physics brings to mind, that we couldn't lose sight of the fact that the degree that we were giving was a bachelor of science degree. And this was confused because we were a professional curriculum, professional school, but we weren't getting the professional degree. It was a bachelor of science degree. And I never saw any interest or point to discussing why pharmacists should have a course in undergraduate physics. That simply wasn't the point. If you're getting a bachelor of science degree, then one can see that you do that without this individual having some sort of college physics. That was the issue. It wasn't whether it's useful to pharmacists or not. That's a whole other thing.

Q. I think it's important because the curricular decisions in colleges sometimes degenerate to

the point of fighting for curricular turf. I think the curricular revisions that you were involved in did not happen to some extent.

A. I remember the more positive \_\_\_\_\_ in the chemical pharmacology discussions, when we were talking about that proposed revision before we did it. Someone in the faculty meeting said to me, “You’ll lose your identity if you give up the medicinal chemistry course.” And I said, “I can’t imagine that my identity as a medicinal chemist is dependent on what I teach at the undergraduate level.” But the point was made that if you’re not teaching a course called medicinal chemistry, you will lost your identity. Turf kind of thing. You want to protect the identity of medicinal chemistry. You’ve got to have a course called medicinal chemistry. Don’t blend it with pharmacology. I always thought that was nonsense. There were some points raised about it. My concern was never a turf concern. I didn’t feel that my own personal identity or the identity of my field was dependent on the name of an undergraduate course. I had no problems talking about chemical pharmacology. Other people didn’t agree with that position. But I didn’t push for the chemical pharmacology sequence because of any turf consideration. Other people pushed against it I think because of turf unfortunately.

Q. You said that Don had a different view of how 433 should be taught.

A. Don and I have always disagreed on a number of things in medicinal chemistry. When I first started teaching medicinal chemistry, I used to teach a lot of synthesis. Eventually I came to believe that while that was interesting to me and a few people in class, it had as much relationship to the pharmacy curriculum as did art appreciation. It simply wasn’t relevant. It was fun to talk about but I didn’t see much point in talking about it to

pharmacy students. So when I developed that, it was 433, I developed the 433 course and I developed it as a chemistry course. It had nothing at all to do with synthesis. I just feel that synthesis was relevant. And Don didn't see it that way. Don loved to talk about synthesis of drugs.

Q. It's easier to teach synthesis.

A. It's sort traditional in medicinal chemistry up to that point. We talked about classic drugs and how they're synthesized in the following way. We expect the students to be able to synthesize. \_\_\_\_\_ and I did it for years, had the same last question on every exam I ever gave. Synthesize the following two compounds from water benzene and two carbon compounds, or something like that. My kids had to do synthesis. Good mental training, no question about it. But so are lots of things. Almost anything that requires some discipline is good mental training. I don't think it was particularly justifiable to put in all that synthesis. When I began to think about this 433 course, it seemed much more sensible to forget about the synthesis. Let's talk about predicting properties of compounds. That's good chemistry. You can't memorize things. You really have to think about it. Learn some concepts. And that's something that I can see pharmacists, particularly those at that time who were going into clinical areas, that's something that would be useful. And I still believe that. But Don and I have always had friendly disagreements on a great many things. Where do we go from this?

Q. We might mention perhaps a little bit in passing about the Office of Educational Development, which came in just before you left the college.

A. Well, as the case with many things in those days, I think I was a prime figure in that one.

At least I remember one night in the conference room of the College of Pharmacy, Greg Trivakowsky and Lloyd Parks and me, I can't remember who else was there, Dave \_\_\_\_\_ probably. Maybe someone else, I don't know. And we had Delane Hospeth in as a consultant on how to grant. We were writing a proposal to do this stuff.

Q. The background, as I recall, is that there was a special grant available for education development. And Parks initially decided they wanted the college to go for it and divided up the faculty into several sub-committees. And we were not going anywhere with it. We were not getting very far. I was in graduate school at the time and taking course work in educational development. And as part of one of my courses, I brought the grant proposal to Greg Trivakowsky, whom I was taking a course from at that time. And he looked it over and said, "Look, this is going to be reviewed by educators, not by scientists. I'd like to help but I'm just too busy. As a friend, Delane Huspath, who is at Syracuse and is not terribly happy there. I think we could do something." And I brought Greg over to talk to the dean. They were using a system as approach which an old army man loved. PERT. All those good things. Greg brought in Delane and Delane and Greg took the materials that the faculty had developed and did a cut and paste routine on it. Sent it in and came back with criticisms. And ended up in Dave Knapp's lap. And Dave had just come back from a sabbatical I think, in Michigan. And he was the one who put together the final proposals.

Q. That's interesting. All I can remember about it is that night session in the conference room. And I think that must have been on the final proposal on that. I guess I was ambivalent about that whole thing. Certainly not about approaching pharmacy education

from a little different point of view, but I never really believed in Delane Huspath I guess.

We had all this stuff about the electronic classroom. We were going to wire up classrooms so students responded immediately. A lot of time spent on scoring exams electronically and so on. A lot of it seemed a little flaky to me who had the traditional non-educationist view of education. But Delane and I became socially friendly for a while. But we argued a lot about what was going on in pharmacy education. I had very little contact with that operation. Didn't think too much of it. Was impressed with Crawheim more than with Huspath in many ways. There's not much more I can say about it.

Q. The concept itself did not seem to really catch on in college.

A. No, no. You had a very independent faculty that didn't want to mess with all those folks. Never got integrated well.

Q. That came in earlier I think, in '69. And was added to that.

A. I never found it an impressive venture, maybe because of the people; maybe because of people I knew. And maybe because of the times. It would be interesting to see it here and watching it around campus. Not so much now, maybe eight or nine years ago.

(Unintelligible) I've talked to Eric Decosta for example at some length about whether this should all be pulled together somewhere. Because we see graduate faculty nominations coming up from health professional schools for individuals whose background is in education. What are we talking about at the graduate level? What's the peer group? If you're doing this in pharmacy, is your peer group pharmaceutical scientists or is your peer group other people doing health professions education? These never seemed to work

very well. (Unintelligible)

Q. How could it have worked? The education development. It certainly was viewed as a staff type of resource that could be called upon.

A. Faculty felt that the dean imposed this on the rest of the faculty and nobody wanted it. And there was strong resentment from the people. Not so much their fault, but Delane's personality didn't help that. But most of the science faculty felt that this was the dean's doing; that nobody on the faculty really agreed or wanted it. And suddenly you bring people in who are going to tell us how to teach. We felt we were a strong and good teaching faculty. With that kind of resentment, it's almost a sure bet that things would go down the drain. And particularly Delane. Very few people on the faculty really related well to Delane. (Unintelligible)

Q. Those were his good points.

A. Yes. There's not much more I can think of with that group. I was never involved with them in any particular way.

Q. Certainly in the late 60's we had another surge of faculty. And those were not coming from Wisconsin typically as the last batch did.

A. Yea, but it's very strange, you know, if you look at this group, I guess you have to look at it in some depth. Dennis Feller, he did come from Wisconsin.

Q. Yes, he graduated, yes, he's the exception. Undergraduate at Wisconsin.

A. But there are more exceptions than you realize. Duane Miller. Duane did not come from Wisconsin. Duane came from Washington, where he got his degree with Wendel Nelson, who didn't come from Wisconsin. Who came from Kansas where he got his degree with

Ed Smithsman, who came from Wisconsin. Very important to recognize. Neil Louis came from Kansas, where he got his degree with Matt Merdies, who was an undergraduate with me at Illinois. And Matt was in with Ed Smithsman. So in the med chem group, the med chem group was totally dominated by the Smithsman thing. I've used that group in fact to talk about the concept of inbreeding. Because I got my degree at Wisconsin. Don got his at Kansas, Duane got his at Washington and then we all come from the same group, in terms of philosophy and intellectual background in our field. Three different universities yet we were, I felt, a very inbred group.

Q. You're saying that in a negative sense.

A. Well, to the extent that inbreeding is used as a negative term. But inbreeding usually you think of people from your own university, all from the same university. And I've always contended that that's not the issue. That's simplistic. Inbreeding is bad if you're talking about intellectual inbreeding. You're talking about people who all have the same point of view together, regardless of where they come from. Now Don and Neil and I shouldn't have different points of view. We were out of the same system, but it was a unique system that was large enough so that people with diverse points of view developed. But I used this as simply a way to say, "Hey, we're from three different institutions and yet one could say that that group is more inbred than if we had all been from the same institution, working for people with very, very different points of view. We came out of the same research group.

Q. Like a continuation of a \_\_\_\_\_ I suppose, to use a chemical term.

A. That's right. And again, in this particular group as we go through the names in this

group, this begins to get sort of away to the end of my time. Neil Louis was brought in basically to fill the position left by my coming to the graduate school. My contacts with the other people who came in at that time, very \_\_\_\_\_. I was quite friendly with David Dianet, was quite friendly with Chris Badowskis, with Mike Gerald, with Dick Rooney, with Sylvan. But some of the \_\_\_\_ Bill Miller and John Baldwin and Harold Boxenbaum, I really didn't know at all. No contact.

Q. We might reflect a little bit, and this is probably something that's very, very tangential, but the process for interviewing faculty members also changed over a period of time. I remember in the mid-60's, when I joined the faculty, there was always a traditional supper, buffet supper at Parks' home, with tuna casserole.

A. Tuna casserole and no hard liquor. Had more soft drinks with Parks. I hadn't thought about that. That's right.

Q. And that as the faculty grew, it was no longer possible or perhaps desirable, for the entire faculty to interview new faculty members. This was done perhaps at the division level or at the group level and at the executive committee level. And people could come in that you perhaps had never even met.

A. Yes, as the college got larger there's no question this happened, particularly I found with the clinical group. We just lost touch with the clinical group, come in at faculty meetings and see people you had no idea who they were. One of the consequences of size. Parks and I talked in great length about the development of the clinical group. Mostly talked on the golf course. We'd play golf and talk about the college. I felt very strongly and still do that pharmacy has been developed by clinical faculty and has all the same problems that

medicine has had traditionally with clinical faculty, as any professional school does. One of the things I remember doing in the college, I chaired a little committee that looked at the building reqs. In fact, it was a very controversial issue. Had to do with clinical faculty, kind of involvement with the college that one has.

Q. This is where the paranoia reached its peak, didn't it?

A. Yea. Still see the same kind of thing. You see it on graduate faculty. Graduate faculty at this university, it is my contention that any given faculty, if you're talking about issues with the graduate program, only the graduate faculty \_\_\_\_\_ and I have colleagues, particularly in some of the professional schools, who are \_\_\_\_\_.

Q. I remember we instituted some rules that I recall making it impossible for clinical faculty to vote unless they had been on contract for six quarters.

A. Something like that.

Q. And then also to vote by the percentage of your appointment. And there was a question about how many fingers you're going to hold up or how many tenths of a vote. It got a little strange.

A. Yes, very strange. This is going to be a period of time when Arthur Tye was considering early retirement. Arthur and I had shared an office for many, many years, first in the old pharmacy building. In fact, that then split after it moved over with the pharmacologists into the building across the street. The old vets lab. And I retained the office across from the bathroom, as I recall, in the pharmacy building. We spent enormous amounts of time talking about a variety of things. And we became, as I said before, very close personal friends.

- Q. Tape 3, side a. This is May 21<sup>st</sup>. We're continuing our oral history of Jules Lupidus. Jules, when we stopped last time, you were reminiscing about some of your colleagues in the early to mid-60's in the College of Pharmacy.
- A. It's interesting that some of those colleagues were people that I had known as graduate students at Wisconsin. Ted Sokolowski and I were graduate students together. Though he worked with Gagoochy and I worked with Smithsman. Of course, Tom Wittack and I had a relationship that went back many, many years. Tom and I worked in the same laboratory for Smithsman. And Don moved into my bench when I left Wisconsin. He had gone to Iowa afterwards and I was delighted when we brought Don to Ohio State. Of course, Don and I have had sort of a special relationship as colleagues and friends for many, many years. Lou Mulspeech is another person I should mention. I have known Lou professionally for some year when he was at Columbia, before he came to Ohio State. So there were several people joining the faculty in those years who were no strangers to me. And as the faculty grew in size, from what a very small faculty at the time I first came here, it didn't lose of the intimacy that was valuable in a small town. I suppose it's because many of the people knew each other in other ways. And the people joining the faculty were often not strangers at all. There was a large group from Wisconsin including you, so there were all kinds of common associations. I had not known Al Berkman before but several other people on the faculty had. \_\_\_\_\_ other course were graduate students that I worked with for many years. And Less Mitcher and I had also some common interests in the past, actually due to a background working in certain areas of national

products chemistry. One of the most interesting people who joined our faculty for a short time in those years was Bob Ober. Bob was a good example of some of the problems with student evaluation of teaching. Bob Ober was one of the brightest people I've ever known. He was a superb colleague and we became good friends. We played golf together and talked a lot about chemistry, medicinal chemistry, growth metabolism and so on. Bob was rather soft spoken and had a habit, when asked a question, of closing his eyes for a moment and thinking hard before answering. I watched him do this in class and looked at student evaluations and almost uniformly they indicated that students felt he didn't know his material. And it was a classic example of the way that undergraduate students particularly confuse being glib with the knowledge. With Bob, something was not glib. He thought carefully before he spoke and when he spoke, you could always count on it as being good information. He had read widely, but he just didn't come across for an undergraduate. And eventually he felt that he really couldn't teach; he had to go back to industry. It was sad in many ways because he was a first rate and I think a good teacher. His mannerisms didn't come across to students and that came back to him. He felt that the students didn't like him, that he wasn't effective, and so he left. I think it was too bad in many, many ways. But the college did grow during those years. And I think became much more stronger scientifically. I think the additions of faculty were uniformly good ones, with the possible exception of Monty \_\_\_\_\_ we talked about before. But otherwise strong people were added to the faculty. And that rather unusual situation came here to Ohio State in the College of Pharmacy that we referred to earlier. And that is, perhaps students felt that there were no departments. There were never any barriers to

these people working together. So even if the faculty increased in size, it was a very open, easy atmosphere for people to talk about anything they wanted to talk about, and particularly to work together.

Q. People from both undergraduate and graduate programs?

A. Absolutely. A lot of, well I was very involved as you know, in a fair amount of joint teaching or team teaching. But as I look at this list, I've done research and published papers with Les Mitcher and Lou Malskis and \_\_\_\_\_ Patiel, and just a variety of people in the college in different disciplines, largely because you worked with people who had common interests. There were no artificial boundaries to stop that and I was constantly impressed by the fact that even as the faculty grew, those boundaries didn't develop. A lot of interaction which made for a very special faculty.

Q. You say that probably Wisconsin was over represented as far as a background?

A. Yea. Wisconsin in the late 50's was where most of the action was in pharmacy graduate education. Of course, what was happening was the beginning of a change at, largely led I think, by Smithsman and Aguchy, who hired faculty members who were not necessarily pharmacy graduates. I think, looking at this list, well, Doscotch was not. And Mitcher was not. Mitcher got his degree in organic chemistry at Wayne State.

Q. Doscotch was at Wisconsin?

A. Doscotch was at Wisconsin, that's right, in the biochemistry department. Ray and I were exact contemporaries I think at Wisconsin. But it was all part of a move in graduate education in pharmacy for sciences, starting at Wisconsin, to base the research and the graduate education very strongly in the basic field, whether it was organic chemistry or

physical chemistry, rather than to train students with a little bit of pharmacognacy and a little bit of pharmacy and a little bit of this and a little bit of that. A major change, I think, in pharmacy education. And I think many institutions that have developed strong graduate programs in pharmacy base those programs on a core of Wisconsin people, if you look at it all around the country. The strong schools, with the possible exception of California, but even there a lot of those people were Tacagucy people. A lot of people at Kentucky were Tacagucy and so on and so forth. There are Smithsman people out all over in colleges of pharmacy. So it was sort of a club that spread out. It had an incredible effect on pharmaceutical sciences because those that didn't go as we said last time, those that didn't go into teaching went into industry. And most of them rose rather quickly to major positions in industry. An interesting group of people.

Q. During the late 60's, there was another major curricular revision begun, which listed some of the new courses that were added. The emphasis on clinical pharmacy. I wonder whether you could reflect on that revision of what the faculty seemed to be doing at that time, and how curricular decisions were made.

A. Well, the last time that revisions were done was very complicated because there was a small group of people involving Dave Knapp and me and Arthur Tye and I think Harold \_\_\_\_\_. We were really pushing the faculty and the deans for sort of a wide open look at where we thought pharmacy education was doing. And it was very clinically \_\_\_\_\_ oriented. And I would have to say I think the effect of that curricular change, I think in many ways had gone farther than we would have liked to have seen and growth in \_\_\_\_\_ I remember specific items. But it took on a life of its own, the clinical thing

took on a life of its own and moved to dominate the curriculum, which isn't bad. Parks was a very, very strong leader and if he didn't get what he wanted in terms of curricular revision or almost any other item, he would wait and bring it back again and very often get things through simply through sheer endurance.

Q. He was behind this phase?

A. As I recall, he was not. He wanted a rather quick and straight forward revision. He visited me at my house one weekend to sit and talk and ask about why we were doing this thing, why we were slowing things up. And we had one of our usual discussions which had nothing to do with our general good feeling toward each other. But we disagreed violently on this area. I felt it was important to air these issues and get them out into the open. He felt that we were, we being the little committee, were sort of monkey wrenching the work. He just wanted to get on with it. Unintelligible. And we were saying, "Wait a minute. We don't think anyone knows what we're doing. We ought to be trying to define where it is we think we want to go and then look at the curriculum relative to that." But eventually, as a lot of compromises were made, the curriculum did change. We brought in a \_\_\_\_\_ introduction course, the professional practice kinds of things. Then it went a little overboard for a while. I remember one faculty meeting where Dean Parks was insisting that all of the faculty who really believed in this clinical thing, all of the faculty become involved in clinical rounds. This didn't go over very well with the basic science faculty, who at that time were expected to get lots of research grants and have lots of graduate students and teach their undergraduate course and teach

their graduate course. And suddenly they were being told, in order to teach in the pharmacy curriculum, you should be over there on rounds and \_\_\_\_\_. That was one where Parks backed off rather quickly after he was basically confronted on that issue by almost all senior faculty who said, “We’ve got a lot of other things to do. We’re not pharmacists. We’re involved in teaching pharmacists, \_\_\_\_\_ drugs they use. But we’re not pharmacists.” But that comes back to a basic point of philosophy about teaching in any professional curriculum. And that is, how the basic scientists fit into professional curriculum. And so it was my contention that the basic scientists role is not to teach the professionals to be practitioners; it’s to teach the chemistry of physiology or pharmacology or whatever. And that comes together through the entire curriculum with their professional experiences and so on.

Q. It’s particularly important because many of the scientists coming out these days no longer have the undergraduate pharmacy background, as was the case perhaps 20 or 30 years ago.

A. Even so, I guess I still believe that the practical training, professional training resides primarily with the professionals in the field with the students. And that there’s a real role for practicing professionals in a curriculum. But you also have other people in the curriculum. You have people teaching chemistry and pharmacology. You have people teaching English and psychology and so on. Those people had constantly to mold what they’re doing to pharmacists. Now, you can fool around with that a little bit. Carl Olson and I used to have long discussions about that, about the fact that you could teach exactly the same basic principals in chemistry using examples that happen to be drugs, rather than

using examples that happen to be idealized. That's what your basis is in chemistry.

Without giving anything away, without degrading standards at all. It's just that pharmacy students, when they look at a formula that has HAC as an idealized acid, don't relate to it at all. And if you use phenylbarbitol, so that they think it's more relevant. It's the same equations and you're talking about chemical equilibrium or something like that. But using phenylbarbitol makes pharmacy students, and it's natural, think that it's more relevant to what they're doing. That's not even a concession. That's on the part of the faculty. It's just looking at what you're teaching and focusing it a little for the pupil.

Q. Some colleges organize themselves with a teaching faculty and a research faculty. At Ohio State, it was typically everybody was supposed to do a little of everything.

A. That was always clear to me from the time I came to Ohio State in the College of Pharmacy. Parks, particularly I think, pushed very hard on the Ohio State triad. The great land grant teaching research. All of us taught undergraduate and graduate level. All of us were supposed to do research. You let graduate students get research funds. And all of us participated to some extent or another in service activities. I gave talks to local pharmaceutical groups as did everyone on the faculty. I think that's changed a lot as the faculty has gotten larger. But it was just exceptions, a way of life. All of us advised students. And it's intriguing to me, as been intriguing the last few years at Ohio State, there was a big move at Ohio State just two years ago, so that all faculty should be advising undergraduates. People were moaning and groaning about, "How are you going to find time to do this and so on?" And I thought back to the College of Pharmacy where all of us had twenty, thirty, forty advisees at all times including pharmacy students. Saw

them every quarter, signed their schedule card, tried to elicit some spark of intelligence from some of them without much success. Advising was a frustrating experience for me and I guess for other. And also a very good one. I made some good friends through the advising of students that I saw every quarter for five years basically. Talked about their lives and talked what they wanted to do. I gave them reasonable advice. It certainly gives you a different view of what students are worried about. I had a students in my office that told me they'd been going to college for four years and don't know how to learn from reading a book. And recognized that that's a big loss, a big problem in their lives. Very sad. Well, at any rate, one of the things that we talked about a little bit last time was, it was very exciting during this period to me, when we developed the chemical pharmacology course.

Q. Can you describe the course?

A. Yea. I guess the prime movers in the course were Feldwald and I. Arthur Todd was also involved. Perhaps the three of us set it up. It was set up as a four quarter course with five lectures a week and a recitation each week. The course was taught on a drug class basis. That is, we would take certain classes of drugs and deal with them in some sequence. For every class of drugs, the medicinal chemists who happen to be involved in that particular topic would come in first and talk about the chemistry of those compounds. Then, the pharmacologist would come in and talk about the pharmacology compounds and the medicinal chemists would come back and talk about the relationship between the chemical structure and biological activity.

Q. Completed integrated.

A. Totally. Totally integrated course. And it really had to be planned and you had to stick pretty well to schedules. What happened right at the beginning was you had to sit down and say, "It will take me one period or one and a half periods or two periods to talk about this." And you had to be pretty specific on that because there were only so many periods and you had to get all the material in. When we first started the course, everybody who was going to be teaching in it, and with all lectures, we talked about that I think a little last time and what a beneficial effect that has on one's teaching. Later, that sort of tapered off. But always you attended the lectures of the person you were working with. So, if I were lecturing about autonomic drugs and Harold or Arthur or Alan or Dennis was teaching about that, I would always be in the back of the room to hear what they were talking about so I could use that materials, perhaps fit my lectures to it, and they were doing the same. I think it was really a stupendously good course. And like most courses at that time, there was a great deal of faculty involved. It was stupendously good for very good students because the very good students recognized that, appreciate that, and are stimulated. But for the poor students it was too much work. We did a lot of fun things in that course. It was unusual that it was a four quarter course on a three quarter system. So the fourth quarter was the autumn quarter of their senior year. Students came back after the summer time. And one year, just to keep everybody honest, what we did the first lecture period of the autumn period, was to give them a power exam. Students were outraged. And what we did was give a very general exam about the compounds we had talked about during the previous year. But not obscure ones. The major ones. Atropine, Phenylbarbitol. Very simple questions about what kinds of drugs they were. The point

we're making with the students and we made again and again in that course, was that they weren't supposed to be learning this stuff just for one course. These drugs that we were talking about were going to continue to be the major drugs that pharmacists used. And at some point they had to recognize that they had to carry this around all the time. Generally I felt very good about teaching that course. We had good student reactions for the most part. The faculty all enjoyed teaching in that course. And I saw that course develop and then saw it leave the curriculum. I was sorry to see it leave. It was a unique experience but maybe it was only right for its time.

Q. Other colleges have experienced a rift, I think, between clinical faculty and basic science faculty. And that developed to a certain extent here at Ohio State. Did you pick up on that?

A. Yea. Well I was never terribly close to that personally. You absolutely correct. There was a lot of ill will. It was primarily, as I saw it, between the pharmaceuticals faculty and the clinical faculty. (Unintelligible) The pharmaceuticals faculty was as close to the kind of work they were doing to actual drugs, pharmaco-kinetics and so on and so forth. There was almost no direction at any time between the med chem people who were all synthesizing things and the clinical people. There was very little professional \_\_\_\_\_. I don't know what I can say about that. I think it tore the college up for a long time. I think the pharmaceuticals faculty for several years at least was terrifically provincial, terrifically insolent. I don't know whether they felt threatened or what it was. But they seemed to be demanding that clinical faculty be equally adept as the pharmaceuticals faculty in science before they could consider them to be working colleagues. And that's

sort of a nonsense approach as far as I'm concerned. There was great reluctance, it appears to me, to accept clinical faculty on their own right and ask the question of whether they were doing valuable clinical research. Instead of that, the position taken was that clinical research, by definition, was low level and doesn't preserve (unintelligible). Terrible. Terrible.

Q. Of course, at that time, we only had one tenure track situation. If clinical faculty were not able to meet the scientific tenure track requirements, they were out after a period of time. Or they were in a non-tenure position in which, I think maybe \_\_\_\_\_.

A. And another aspect of that was there were pseudo research members that came out of the clinical faculty, largely the hospital pharmacy faculty. And I still differentiate I guess between the hospital pharmacy program under Cliff \_\_\_\_\_ and what clinical pharmacy is, was or could become. There was some pretty bad research papers that came out of hospital pharmacy, largely because instead of doing straight forward clinical studies, there were attempts to do sort of mini scientific projects without anybody, faculty or students, having the appropriate background to do that. And that simply exacerbated the entire situation. You'd see these little papers come out. There had been awards. And they would use techniques that couldn't possibly give you the answers that were listed there and so on. And so this soured the science faculty.

Q. The masters program in hospital pharmacy was always isolated from the mainstream of the college?

A. Not only isolated, but it was really hands off.

Q. Why was that?

A. Well, I guess many people wondered about that. One time in my role as quasi-chair of the graduate committee, raised the question of how come the graduate committee never looked at the graduate program in hospital pharmacy. That seems to be totally separate from what we were doing. And there was a great deal of apathy. People, not the dean necessarily, although he was certainly not interested in broadening the view, but other members of the committee would answer, I remember very specifically, “Cliff knows what he’s doing. We don’t know anything about that stuff. What’s the point of our getting involved with it?” And that program ran free wheeling for many, many years, with no controls on it whatever, and with many of its students being former undergrads of mine and of other people, and coming to us and telling us absolute horror stories about how bad the program really was, about how students weren’t getting the support, and so on.

Q. By working hard as pharmacists and so on in the residency program.

A. And being basically stuck because they needed the recommendations and the director of the program was very powerful in the American Hospital Pharmacy.

Q. Parks had a problem with Lashley in that regard, did he not?

A. Yea, I think, as I say Cliff was very strong and ran his own shop. I never detected any control from the college at all. And that became a major issue. I will never forget an executive committee meeting, must have been the late 60's, I had seen during the month or so prior to that meeting, young men and women wearing sort of gold color jackets wandering around.

Q. Gold coaters.

A. Had no idea who they were or what they were doing in the college. And in moseying

around a little bit, I found out that these were pharmacy technicians. Well I was a senior professor in the college, member of the executive committee, curriculum committee, research committee, graduate committee. And I had never heard anything about this.

And I was appalled by that fact. So in executive committee, and I probably shouldn't have done this, but (unintelligible), "Who are all these people? Who are these people in the gold coats?" And the dean said, "They're in the pharmacy technician program." I said, "What pharmacy technician program? How come the faculty of this college wasn't informed about this program? What is it? Who are these people? What is its purpose? How does it relate to the college of pharmacy?" Parks got very defensive about that and there was a lot of voice raising and so on and so forth. It was a classical example that the college faculty had no control, no say, whatever, in how that hospital pharmacy ran.

Q. The hospital pharmacy program had a different vice president, I think, and different budget lines.

A. Well that's true.

Q. Almost completely separate operation.

A. It ran as part of the hospital operation. It always seemed to me that if we were talking about pharmacy or pharmacy services on this campus, that the college of pharmacy should be in the driver's seat in looking at philosophy and looking at policies. We should be defining what pharmacy practice was on this campus.

Q. I think one of the disappointments that Dean Parks had with the hospital pharmacy program was the difficulty of getting clinical experience for undergraduate students in the hospital and clinical experience at the new student health center, which was something

that I think he pushed for and just could not get through to the bureaucracy.

- A. Well, of course there was another factor here too. The college of pharmacy faculty in that curriculum revision of '69-'70 spent a good deal of time and effort talking about the future of pharmacy. Talking about the clinical role of the pharmacist. And came up with this new curriculum. Talked about clinical pharmacy. We didn't talk to anyone else about this. We didn't talk to the medical school, to the nurses, the dentists, or anybody. We tried. Dave Knapp tried to get a sort of a super curriculum committee made up of the chairs of the curriculum committees with pharmacy, dentistry, medicine, so on and so forth. No support whatever from any of the other schools. They simply were totally uninterested. Dick Miling, who was dean of medicine at that time, was completely uninterested in pharmacy, had no interest at all. During those years he was in the process of grooming this medical school and that was taking all his time and effort.
- Q. He and Parks did not get along.
- A. No, he and Parks did not get along at all. I've often thought of Miling as the general and Parks as the colonel. Two military guys. I think Miling was a disaster for this university and Parks certainly was not. In addition to the bad things Miling did in medical school, there was no cooperation at all. So we're developing this curriculum for clinical people and implicit in it is that the students have to receive training in a clinical setting. And there was no receptivity on the part of the medical school which controlled most of the clinical facilities to have these people. It was a very bad time, a very frustrating time.
- Q. This is typical of Ohio State as far as the academic units being isolated, not working together.

- A. Absolutely. And the health sciences that's very, very bad. This is one of the reasons that I was very interested a little later on in the concept here that there be a vice president for health sciences. In fact, I chaired a committee at one time in the 70's that tried to find such a person. To jump ahead a little bit and talk about that because it's pertinent. There were tuitions going up with that position. The committee worked hard for a long time. One of the issues was control of the hospital and it became very clear that the medical dean wanted control of the hospital, but that all of the other health sciences were concerned about that because they viewed the hospital as a teaching resource for their people. Basic conflict. The other thing is that every single dean of every health professional school here was totally opposed to the idea of a vice president for health sciences. And undercut every way they possibly could. Because they viewed it as a loss of authority for them. They would say, "I'm no longer a free agent talking to the president or something. I've got to go through this vice president." And the medical dean particularly, I think, was very concerned about this. The medical dean was an individual here who, by title I guess and by tradition, went and dealt with the legislature directly, was very prominent figure. And as soon as you talk about a vice president for health sciences, the medical dean no longer does that. It was a conflict that could not have worked, and eventually that search was disbanded. We went through another one some years later. Never defined the position. Hired a new \_\_\_\_\_. It was a total disaster. It didn't work at all. And now we've abandoned it and we're talking about self services.
- Q. Sort of a vice president for bed pans and things.
- A. Yes, exactly. But have never succeeded in getting the health professions community on

this campus together in any productive way. That doesn't say that individual productive relationships haven't worked out. It's been people we just didn't have. I'm talking about in terms of a research training and education center.

Q. It seems to be going against the trend across the country. You see health science centers springing up and working together all over this country. Why couldn't that happen at Ohio State?

A. Poor leadership.

Q. At what level? At dean level?

A. All the way down the line. But there has been poor leadership at the dean level, poor leadership in academic affairs, poor leadership at the president level. Certainly during the time that we're talking about now, there was some very strong people in the medical school who were interested in keeping a tight control on things. And they were powerful enough to win that one. No administrators in central administration seemed to be powerful enough to take that on. The practice plan controversy came along later; was an attempt to do some of that and it didn't work at all. We have a practice plan now which is sort of an \_\_\_\_\_ practice plan because it didn't do much at all. It didn't solve any of the real problems. Caused a lot of furor and turmoil and has resulted in basically nothing as far as I'm concerned. It's been very sad. When we talk about research on this campus and talk about where we are in all the rankings, it's very obvious that when one looks at the figures with any seriousness at all, that the major problem here is the medical center. We have enormous plant with a very, very large faculty and first rate facilities and do almost no research here. And that's due primarily to people like \_\_\_\_\_, who made

this into sort of a Franklin County Community Hospital. And there's nothing wrong with providing patient service, but this is an academic medical center. And if all it does is provide patient service, you really have to question why we're in this business at all. It's a pity and it has had effects on the development of pharmacy programs, development of any of the health professional programs. There are signs that people are interested in change it, it's been a long time coming.

Q. You can't teach clinical science on a cost accounting basis and this is, I think, perhaps one thing that seems to come up. That's it not possible for us to extend these clinical services to undergraduate students or to graduate students because it's just too expensive. We just can't do it.

A. Pharmacy is a clinical specialty. It obviously depends a great deal on the willingness of the medical profession to let people in. In the early days of talking a lot about clinical pharmacy and trying to give our students really good information about what was happening, one of the saddest things was to talk to students who had tried to tell doctors, "Well, doctor, have you ever considered this?" Oh boy. Of course, many doctors were not at all receptive having pharmacists tell them anything. The way it worked best it seemed to me, in talking to Hugh Cabot from Minnesota, was there a Hugh Cabot?

Q. There was a Hugh Cabot.

A. I'm pulling names off from a long time ago, but in talking about how you pull this off, this acceptance of the clinical role of the pharmacist, everyone seems to agree that you absolutely had to start that at the student level. And the idea of going on rounds and being in contact with medical students, with interns, with residents, so on and so forth, was

a long time consuming process. But you didn't send them a twenty-two year old pharmacy student with a fifty year old physician and have them tell the physician, "Let me tell you about medication, doctor." That was a bad thing.

Q. But pharmacy students could tell medical students and medical students would accept it.

A. They were receptive. That seemed to be the case. This was about the time that I was chairing the curriculum committee of the AACCP, I believe. I chaired for a year and Jim \_\_\_\_\_ took it over after me. And this was about the time there was a lot of talk about PharmD. And our committee came down very strongly on two points, both of which (unintelligible). But very strongly on two points. One is that the wrong approach was to add a year to a curriculum that had been conceived for other purposes.

Q. It was already overstuffed as it was.

A. But it wasn't only that. If you take one view of curriculum planning, you have a curriculum that's a five year curriculum designed to do a certain thing. It has a beginning, a middle and an end. Our view was don't tack another end onto it. You've got to really talk about a different curriculum that has a beginning, a middle and an end. And that those two are different endpoints. We said, "You can't just add a year. You've got to really look more deeply." The other thing we said was that no school that does not exist physically on a health science campus should develop PharmD programs.

Q. Now this was the AACCP committee you're talking about?

A. Yes. And the reason for that was just what we had just been talking about. We said it is absolutely essential in these programs, if you're going to be talking about PharmD as someone very clinically involved, that this has got to be on a campus where there is

teaching hospital, and where medical students, pharmacy students, so on and so forth, intermingle in that teaching setting. And of course I don't know how many of the colleges of pharmacy in this country exist in that particular setting. A lot of the major ones certainly do. There are many that don't. And this didn't get good reception.

Q. Butler, Ohio Northern and so on, that have a reasonable undergraduate program but no graduate program and no clinical ...

A. The other thing is you have to have a graduate program in pharmaceutical sciences. Must. In order to give an honest to God PharmD, that those were the components - a strong research oriented pharmaceutical science program and a teaching hospital - all together.

Q. That didn't go over very well.

A. It didn't go over very well. I have never really changed my mind on that one. I think that in terms of good professional education, that still holds.

Q. Well of course what happened was that many colleges did add on that sixth year for PharmD. It occurred on various campuses. Those with graduate programs and with adequate clinical facilities and those without. And there was another period of time would go by before the old program had to be re-evaluated again by AACP and now we have a separate standards for the PharmD program because the PharmD programs, my way of looking at it, it was like Ph.D program. You had to know where you were and who you worked with, for someone to tell if you had an adequate background or not.

A. Of course, I was exposed to some PharmD's at that time who really shook me up. The classic PharmD in this country is Gary Levy. Gary Levy is always used to point out that

you can do first class research even though you don't have a Ph.D. And I had met Gary about this time and was very impressed with him. He was functioning in the kind of situation we're talking about. He was a strong research oriented guy who was did first class research. Clinically important research. It was about this time, well a little earlier than this time, that I had another experience that was \_\_\_\_\_, holding a lot of future activity. And that is, I became a member of the Pharmacology and Toxicology Training Branch Section with the National Institute of General Medical Sciences. I served a term on this committee from 1965-1967. I was the first medicinal chemist to serve there. Very interesting experience. This was a committee that was funding training grants in the areas of medicinal chemistry, pharmacology, clinical pharmacology, and toxicology. Training grounds were very big at that time. There were grants provided to institutions to provide training for scientists. All proposals were site visited. And what members of the committee did during the year was, they would get a proposal in the mail from someplace and would we arrange to go there. And we would spend the day, three members of the committee would meet and go there and spend the day and talk to the people. Write critiques and we'd meet in Washington three times a year, there was a full committee, and we'd go through these and make awards. I entered that committee and discovered of course a great deal of hostility.

Q. You were with pharmacy type.

A. And everybody knew that there was no high quality work going on in the college of pharmacy whatsoever. I took a position on issues in that committee which I felt was appropriate. And that is ultra hard-nosed, particularly on pharmacy schools. We got

numbers of applications from pharmacy schools for training programs in medicinal chemistry. Most of them were abominations and I led the bloodletting all the time. Very interesting people on that committee. The clinical pharmacologists at the time I joined the committee were Walter Modell, Louis Bazzonia, and there may have been one or two more. But there was a major \_\_\_\_\_ in communication.

Q. This is a medical school dominated ...

A. Absolutely, with one exception, and that was me. It was a very good experience and I think by coming on hard-nosed I was successful on that committee. I judge that success in two ways: one was that immediately upon leaving that committee, I served a two year term, I came back \_\_\_\_\_ training ground application for medicinal chemistry and submitted it. We were \_\_\_\_\_ by my successors on that committee and reviewed by that committee and got that award. And I was very pleased with that. And that training ground, I think, is still on its very last vestiges in the colleges. It was a good experience.

A. Tape 3, Side B. Well, where was I? In curriculum, talking about curriculum.

Q. Undergraduate curriculum, yea. What affect did Parks make on undergraduate curriculum?

A. I can't answer that very well for that time. I think I had a terribly global view of what was happening (unintelligible). And in that first year, I had a serious run-in with Lloyd Harris. I was teaching a pharmacology course for two quarters. And Frank Bope was teaching medicinal chemistry. And Harris I guess was teaching a course in \_\_\_\_\_. Charlie Williams (unintelligible). I remember meeting with Lloyd Harris, when we talking about the fact that I was to take over the med chem course, and he handed me a syllabus. And I

ask him what it was. And he said, "That's the course for the syllabus you'll be teaching."

And I said, "No, I'm not going to teach the course off the syllabus." And we had sharp words on that score. And there was another one but I won. Again, I had the support of the dean. I totally devised the way medicinal chemistry was taught here. I started the course by giving a review of organic chemistry that went for about four weeks. And at one time was famous in the college of pharmacy, that I had developed at Wisconsin actually, when I was doing the review of organic chemistry. And made it a much more chemically oriented course on nomenclatures, synthesis and so on. Dave Guttman was doing much the same sort of thing, pharmacy sequence, that is, bringing in more physical chemistry. So those changes were definitely taking place. The changes that I'm familiar with took place a little bit later. I guess in the 60's. Late 60's. But it was a very small faculty at that time. Parks was running it with an iron fist. Parks was chairman of every committee – executive, curriculum, whatever committees there were – Parks was the chairman. And there was no question about who was in charge. Talked with him years later about this, as I recall to his knowledge, (unintelligible). But he felt that there were a lot of changes that had to be made there. And that the only way to do that was to take everything into his own hands and see that it was done right.

Q. The faculty accepted that?

A. At that time. Now later, it became a different story. But the faculty seemed to accept that. For me, as a young assistant professor, that was fine. Because all of the things he was doing were the things that I agreed with and wanted to go forward. I guess I was too young to realize at that time. I realized very definitely later on, that what he established

was really a highly paternal system that is useful in getting things done perhaps, but had devastating affects on faculty development. And it wasn't until 15 years later that I argued constantly with Parks on this particular score.

Q. So at that point in time it was the appropriate thing to do?

A. Yea, I think it was. I think nothing would have happened in this college if he hadn't come in as a very, very strong leader and said, "This is the way we're going to do things, period." And move things in that direction. Of course, Parks was an incredibly hard worker, incredibly devoted man. And he had the respect of the people. You might not have liked his decisions, but I don't think I've ever met a man who was as respected for his inherent honesty. I disagreed with Lloyd Parks on hundreds of things, but I never believed he was devious. I always felt that what he was saying was what he honestly believed and that there wasn't a devious bone in the man's body. He was a real straight arrow.

Q. A man of integrity?

A. Tremendous, just incredible integrity. And as I said, we have argued to the point of shouting at each other, but I've never doubted that he really believed what he said and that's fine. I can deal with that situation very easily. The problem you have is when someone is telling you, "Yes, I agree with you," when you know that this man is lying to me. Parks never, never had that. Also, at that time, I think two significant things. One is I didn't have an office by myself for a long time. When I first came here, I shared an office with Art Lydle for about a year. And Art was an interesting, sad man who came to a very sad end. He committed suicide in 1963. But Art and I became quite friendly. Not

on pharmacy or other things, but through an interest in movies. Art was the world's greatest movie buff and he should never, ever have been a college professor teaching pharmacy school. He should have been running a movie theater like the "Drexel" here in town now. Showing foreign films and classic films. He had encyclopedic knowledge of this stuff and lived for it and loved it. And was terribly frustrated in what he was doing in the college of pharmacy. Just terribly frustrated. It was terrible. Saddest thing I've ever seen. But after a year there, because of some movement, I can't remember what happened with all of the offices, but I ended up sharing an office with Art Hutigh, and that was again, one of the more significant things that happened in my personal and professional life.

Q. Directly across from the mens room?

A. Directly across from the mens room. So every time Dean Parks went to the bathroom, he always turned just at that last minute before going in the door, looked through the window, and there were Arthur and I sitting at two incredibly messy roll-top desks, always talking to each other. And I don't Lloyd ever understood why we just sat around and talked all day long. But Arthur and I became extremely close friends based on a number of things. But common interests in music and poetry and just a whole variety of things. But I was beginning to move away from my interest in natural products chemistry, beans and corn and that stuff, and getting very interested in stereo-chemistry of certain kinds of drugs. And hooked onto the ephedrine alkaloids as some drugs I was quite interested in. And Arthur was sort of interested in the ephedrine alkaloids and it turns out, sort of romantic story, that ephedrine happens to be a Chinese drug in many

ways. It is known as mow wong in China and it's an old natural product in Chinese medicine. We introduced it to western medicine in 1929 by a great Chinese-American pharmacologist by the name of Kai Kai Chin. So there was a Chinese link in this. I'm very interested in Chinese art and Chinese painting, Chinese food. And so there was a whole set of reasons for Arthur and I becoming close friends and we did. From our discussions about ephedrine and about its pharmacology, Arthur was very familiar with the work of Chin and so on. He knew the old pharmacology which had looked at all four isomers of this. No one had looked at all four isomers in years and I was interested in the four isomers. So we started to get the idea for some research projects. And were very fortunate in that Arthur had a first class graduate student, beginning his work at that time, by the name of \_\_\_\_\_ Tim. So \_\_\_\_\_ really became or graduate student. I hope I learned a lot more chemistry than I think Ed was going to learn as a pharmacology student. And I began to learn more pharmacology than I thought I would ever know. That started a series of papers on the ephedrine isomers in pharmacology that went from the early 60's into the 70's. A lot of people worked on that. It was a good solid research project. I think that was among the first funded research that Arthur had had in a long time. But we did get funded for it and had continuing funding for it. Things were really good. That was a good time.

- Q. Do you feel that that may have been the beginning of what eventually resulted in medicinal pharmacology, chemical pharmacology sequence?
- A. No. Not between that. That was a different etiology basically.
- Q. That's a little out of sequence but it just occurred to me.

A. No, that was \_\_\_\_\_ research and we were doing the same thing. Except that a new actor comes in about that time and that's Harold Wolfe. I remember interviewing Harold for his position in the college of pharmacy. There was one other young man who was to be important. He was a very quiet young man and Harold was not. And most of us were really impressed with Harold. But he's going to say what he says and say what he means all the time and it would be interesting working with Harold. So Harold Wolfe came into the college of pharmacy and had a major effect, I think, on the pharmacology. Another instance of somebody coming in with much more modern training in pharmacology. Sort of the equivalent of Dave and me coming into the school. Harold was a different kind of pharmacologist and Harold came with his energy and his movement and shook things up a great deal. But the beginning of the chemical pharmacology course started right after Harold got here because at one time, and I think I have my sequences correct, in the junior year, the students were taking pharmacology. There were also taking pharmaceuticals. And they were also taking med chem. And Harold and Dave and I would talk from time to time about the fact that we were talking about exactly the same drugs to this class of students. We were all talking about them from different points of view. Harold and I went so far at one time to exchange questions on examination, just to shake the students up. This was on a final I think. I took a question from his examination and he took a question from mine and we put them on each other's examinations. It was a great way of studying about this stuff and it all links together. Before time, I can remember the students used to talk about those three courses all at the same time. Because we were giving pretty good courses that demanded a lot from the students. I

think that discussion, particularly between Harold and me at that time, led to the beginning of chemical pharmacology. I guess I was convinced at that time, and no longer am, that the major reason for chemistry, medicinal chemistry in the pharmacy curriculum, was because of the relationship to pharmacology. Now in my later years in the college of pharmacy, I came to reject that notion. But that's later.

Q. There were some political reasons involved too, wasn't there, with the curricular change as far as turf?

A. I guess so. Now it's hard for me to remember the exact dates. But that may have been the time of the famous ad hoc committee on curriculum. That was started by Dave Knapp, \_\_\_\_\_, Arthur Tye, and I can't remember if Harold was on that or not. But we constituted ourselves as a committee to look at the curriculum. Curriculum revision was being discussed in the college of pharmacy, and from our point of view, nothing was happening of any substance.

Q. They're pushing around the same old pieces.

A. Pushing around pieces, that's right. Should we make this three hours or four hours? Should we take this from the junior and put it at the seniors? And we said, "No, that's the wrong way. We have to entirely revise the whole curriculum." It was a very traumatic time. Parks was very upset by a lot of it. Some of it got accomplished; some of it didn't. But chemical pharmacology sequence was something that resulted from that. I always thought, this may be a little ahead of the time, but I always thought that was a first class sequence. It was an innovative approach to teaching pharmacy students about drugs. I think it's a pity that it's not in curriculum. I think there were good reasons to bring that

together.

Q. Disappeared because of the individuals involved?

A. Uh-huh, yea. It took a certain kind of dedication to do that.

Q. Also took a tremendous amount of time.

A. Yes.

Q. You were team teaching.

A. It was more than team teaching. The first time through that course, everybody said who was involved, sat in on every lecture. If Harold was lecturing and I was going to be doing the med chem part, it wasn't just me that sat in on Harold's lecture. It was everyone from med chem and all the other guys from pharmacology too. There were seven faculty members sitting in the back of the room all the time. No one ever costed that out. It was incredibly expensive. But it does interesting things for one's teaching. You have to realize that instead of this class of undergraduates sitting here, you've got seven of your colleagues sitting in the back of the room listening to what you're saying and knowing. The undergraduates may or may not know if what you're saying is really the right stuff or not, but your colleagues sure do.

Q. That's peer review on the firing line.

A. Absolutely. And from time to time somebody would raise up a challenge. A faculty member would say, "Hey, I don't agree with that." You had to be prepared, well prepared. I loved teaching in that course. Just adored it. Liked it with everyone but particularly Hal. Hal and I had a lot of fun teaching that. I particularly enjoyed the Fridays, every Friday in that course would be the hour presentation where everyone who

had lectured during the week would be there on the podium and take questions from the class. And we used to argue with each other too. And it was a lot of fun. Hal and I could banter back and forth.

Q. It took a certain kind of atmosphere though to even develop that type of course. I mean, the atmosphere that does not seem to exist now.

A. I can't speak to it I simply don't know. But it sure was there then.

Q. The commitment to excellence in teaching.

A. Uh-huh, yea. And John taught in that course, Arthur taught in that course. In med chem, it was me and Don Wittiak and then Duane came in. Even Dick Montecure taught in that course a little bit. Can't remember. Maybe he was before that. But again, that's a little ahead of the story. Also got involved to some extent, maybe not quite so early, in ACC and American Chemical Society and the American Pharmaceutical Association. Not so much from the professional point of view. In the American Chemical Society I was in the med chem section. In the APHA and in the ACC, I was never so interested in ABHA as in the academy, when the academy came in. And again, through teachers of chemistry, there was a group of us in the academy in the chemistry section for example. There still is a chemistry section in the academy. (Unintelligible). There was that group of medicinal chemists, pharmaceutical chemists, who only went to pharmacy functions and then there was a sub-group within that who were also known as the \_\_\_\_\_ chemical \_\_\_\_\_ and that was part of this whole change. Again, as time went by, the group that went to both things became larger and larger and larger. I remember an early discussion I

had with Parks about publication, when Arthur and \_\_\_\_\_ and I first started to publish some stuff. Parks asked me, “Why aren’t you publishing in our journal?” And I said, “I’ll tell you what my journals are. The Journal of Medicinal Chemistry, the Journal of Pharmacology and Therapeutics. I don’t consider the APHA Journal my journal. It doesn’t have the audience I’m looking for. It’s not tough enough in terms of its reviewing.” We were trying to make a point. Again, it was just like we had at Wisconsin. We wanted to put papers out that said College of Pharmacy. We wanted to put them in the most prestigious, toughest journals to get into because we were trying to make a point about the quality of the work that we were doing. And Parks accepted that. I published very little in pharmacy journals. Mostly in pharmacology, J. med chem, things of that type. Published some in scientific edition and in the Academy journal. The Academy Journal still was scientific \_\_\_\_\_. At one time the scientific edition used to look like the other edition and it changed the format.

Q. Journal of Pharmaceutical Science.

A. Journal of Pharmaceutical Science is what I’m talking about. Also published in the Journal of Pharmaceutical Education.

Q. Yes.

A. And had big write-ins in the Journal of Pharmaceutical Education. Dave Knapp and I tried to get Boyd Grimberg fired as editor of that one time without too much success, but we raised a lot of flack. We introduced a resolution at one of the meetings that that \_\_\_\_\_ should be refereed and that the editor not have the discretion to publish papers on his own. It was a very sticky situation.

Q. You ran into the sort of back pocket operation.

A. Exactly. And so we published in a number of journals, here, there and everywhere.

Arthur Tye and I published an article together in the Journal of Chemical Education, for example, about making plastic devices to be used in teaching \_\_\_\_\_. But those were very good years, very active in a number of ways. Another thing that happened during that time was in 1963, the summer I went to the Upjohn Company and spent the summer there as their summer pharmacy professor. Good experience.

Q. And an opportunity to see what the world of manufacturing pharmacy was all about.

A. It was interesting from a number of points of view. I was working in the product chemistry unit there. Virtually everyone in that unit was either from Wisconsin or Ohio State. So about half the guys were guys that were fellow graduate students with me at Wisconsin, and the other half were people who were not my graduate students, but who were graduate students at Ohio State when I came here. People like Walt Murosovitch who was Frank Bope's last student. Don Lamb, who was I think one of Earl \_\_\_\_\_'s students or Earl Harris', I can't remember. So it was a very comfortable group to walk into. All these people, guy from Wisconsin (unintelligible). Had a very, very nice summer. Liked it. Fiddled around, didn't do a great deal of research. What they did there was they would give you some sort of intractable problem that had been hanging around for a while. And I played around with that stuff. It's difficult to come into things like that. There's always a chance you'll come in with a totally new set of eyes and say, "Why don't you do this" and it will work the first time. But that didn't happen. And I using techniques that I really wasn't familiar with. I was doing some steroid chemistry. But it

was a useful summer in that I viewed that as probably the best kind of industrial setting. It was very academic. They were really free of punching clocks and did the research. But I knew very definitely that I never wanted to do that. I had no interest in industry. At that time, in '63, after I had been out for five years, I began to wonder, "What about industry? Maybe I should ..."

Q. Why do you say that? Because of the product orientation or academic freedom?

A. I liked the whole atmosphere in universities more than in industry. Just as simple as that. And as I say, Upjohn I thought was as good as you could possibly get in industry. It was very free, very open for discussing things. But all the people were discussing the same kinds of things. It was not like a university where you have people coming in from all different perspectives. So the most useful thing in that summer was made me very firm in my decision to stay in academic life.

Q. I want to talk a little bit about some of the colleagues you haven't mentioned like Rupert Salisbury.

A. Oh Rupert. Rupert was also at Wisconsin on some kind of sabbatical or leave at the very end of my time as a graduate student. And I came to Rup who was here at the college. We became close friends. There was a golfing group every Thursday summer quarter, on Thursday afternoon. It was Parks, Salisbury and me and one other and that other changed from time to time. It was Hal Wolfe for a while and later on Phil Rogers for a while. A lot of different people came in as the fourth. But Rupert, Parks and I for years. Rupert was a strange, charismatic, larger than life kind of guy. Got his law degree going to school part-time. He then left if I'm correct.

Q. He left in 1960 to become Secretary of the State Board. He was encouraged to do that by Parks. And during that time, he found that in order to survive, he started taking law and finished it off after he came back. He was brought back by Parks.

A. Again, I didn't know all the details of that. Rupert and I almost never talked about professional things. We argued about curriculum things sometimes, but we had no real basis to talk about professional things. We were just close friends and I like to argue professional things with Rupert. Again, we would agree sometimes and not agree sometimes. He was a fascinating and interesting man who frustrated me.

Q What's your favorite memory of him?

A. They are all golf memories. All golf memories. He was really a lot of fun to play golf with. We had marvelous times. That particular group, if I had to pick one memory, it would be on the first tee of the graying course. Three of us. Lloyd Parks, who is a much better golfer than either one of us.

Q. A serious golfer.

A. Yes. Rupert and I hit very long drives and Lloyd Parks miss hit his drive, which is something I haven't seen him do twice in twenty years. And he gets very upset when he does that. And he went out after it and did the same thing again to the second shot. And the same thing for the third shot. And was getting angrier and angrier. And the same thing for the fourth shot. And he had only progressed about one hundred yards. And we were still 120 yards ahead of him. And the fifth time he hit the ball he hit it perfectly. It flew through the air and landed on the fairway in front of the green, bounced several times and rolled up on the green and fell into the hole. And Rupert and I were so

devastated by that experience that I think we blew that hole completely. But we joked about that for years. The other memory I have of Rupert has to do with playing bridge. For a while we had a group of us that played bridge noon hour. We played, this was Dave Guttman ...

Q. This was suspect, was it not?

A. I don't know.

Q. Playing cards.

A. I have no idea. I never paid any attention to that. Maybe it was. Five of us. Me, Harold Wofle, Art Lytle, it was Lytle for a while, but I remember later in the group was me, Harold, Arthur, Dave Guttman, and Rupert. And Arthur and Lytle must have been in at the beginning and then Rupert was gone. The group changed a little bit. But we played for a 40<sup>th</sup> of a cent point. And all the money went into a kitty and when there was enough money, we all went out to dinner with our wives as a group. That was what the money was used for. And we played very fast. There were five people, so one person sat out all the time. And that person's job was to deal out the next hand and have it all ready to go. And we'd all eat our lunch while we were doing this. And I remember one day we did this at the University Golf Course on a rainy day and Rupert was my partner and I bit into a grand slam. It was the first time anyone had ever done that in his whole life.

(Unintelligible).

Q. Arthur Tye.

A. Arthur and I had a very special relationship. I haven't corresponded with him in sometime. But we lived very close together. We lived walking distance from each other's

houses. We were over at each other's houses constantly. I had a very close relationship with his first wife, Josie. It was an unusual relationship; much more than professional. There are too many incidents to talk about with Arthur. Most of them are too personal to lay out. Very different kind of relationship. Jack \_\_\_\_\_ and I have been good friends for 26 years or more. Jack is a very special person. Jack and I have argued bitterly about dozens of things. I don't think it's ever gotten in the way of friendship. We disagreed on a lot of things, but basically there is a strong bond of friendship between Jack and me. Lloyd Harris and I didn't get along from the very beginning. We had a very distant, cool relationship that was helped greatly when he left the University. \_\_\_\_\_ Gulk had a cool, distant relationship. We basically didn't like each other. I didn't care for him either. I never saw him as a scientist of any kind. But I didn't care for the way he dealt with students. I thought he was an overbearing individual. Didn't get along very much. Frank and I have always gotten along. We never interacted much professionally because Frank was really moving out of the chemistry area. I used to get along with Charlie Williams quite well. He used to tell me stories about the old days in the college. He was a friendly old man and he was fun to talk with. And as I say Lytle, sad case. I was with the Upjohn Company in '63 and got a letter from Parks letting me know that he committed suicide. The man was in an impossible situation. He just didn't get along. He couldn't make the grade here. Couldn't cope.

- Q. Studying Parks, he said that he started a lot of projects and had difficulty finishing them. He was very frustrated.
- A. He would go downstairs in his house at night and he had this room in the basement with

all these film journals and that was what he really wanted to do. He was stuck doing something professional for pharmacy and he'd get frustrated and bored and decided to go down with his films. He had a film society for a while. A small group of us, couples. And he was so good. He was so knowledgeable in that. So enthusiastic about it. And many of us said to him, "Art, get out of this business. Go work in the theater. Find a way somehow to get yourself into it." And he never could get himself to do it. I guess he was worried about security and so on and so forth. Probably still would be alive today if he had just quit. What he should have done was quit and go get a job selling popcorn in a movie theater. Anything. He should have gotten into the movie business somehow. And he would have succeeded at that because he was really good. He had the drive. He had no drive for pharmacy. And a big lesson. Cliff \_\_\_\_\_ and I came here at the same time. I think we came in the same year. Had very little to do with each other, personally or professionally. (Unintelligible). We just didn't see each other.

Q. He was brought on to be the superstar in hospital pharmacy.

A. That's right.

Q. And came with very good credentials, as I understand it.

A. Yes. I ran into troubles with Cliff later, not with Cliff personally, but with the way the hospital pharmacy graduate program was going. But a perfectly, friendly, "Hi Cliff," "Hi Jules" relationship. I don't think we ever had a serious discussion about anything, pharmaceutical or otherwise. I'm trying to keep plugging along in this. Talked about a number of things. I think that the revision of the curriculum was a major ... well that's a little later actually. But let's talk about some other faculty.

Q. Sure.

A. I guess some of the people with whom I had the closest interactions were obviously on the chemical side. Lamont Qure was a strange experience for us here. Monty was a merry, gregarious, very outgoing guy. He came in here, made very, very good first impressions. And devastating secondary impressions. I tried to work with Monty for a long time. Found him to be a charming man in many ways. But I couldn't understand his work. Seemed to me Monty would do just about anything to publish. I often felt a lot of his work was highly suspect in terms of its credibility and integrity, strange. Again, they separate everything from the scientist to the human. A nice guy in many ways. Classic Napoleon complex type. Monty was short in stature and he was very brash. He was out there all the time with a big banner that said, I'm Lamont B. Qure and I'm the greatest thing that's ever come down the pike." I watched him work in the lab and was stunned at some of the things that he did. And Monty did not get tenure here. And I think that was the first time that Parks had ever done that. It was a very difficult time. Monty went on to great things. Monty was very prolific in his writing, at least for a while. I don't know where he is now.

Q. I thought at Massachusetts College of Pharmacy.

A. I thought he left there but maybe he's still there. I thought he was at Virginia Commonwealth.

Q. I think you're right.

A. He got into an area of chemistry that was very hot at that time, electro\_\_\_\_\_, and I really don't think \_\_\_\_\_ thought much about it. He was successful writing some books about

it and was a big splash for a little while. And I think that is all over now. I don't think there was anyplace he could go with it because he didn't have the background to do that kind of work. But it was an interesting and a sad period. Ray Dolscotch came in. Ray has been a very, very close friend. Ray has a unique personality. He epitomizes the concept of being hard-nosed. I think he's a marvelous guy. I think he is a first class scientist. Had a great and abiding interest in music. Something that's made us good friends over the years. Ray and I have spent time talking about science and about teaching and about music and arguing. Again, a good relationship. One of the things that I feel very strongly about with the College of Pharmacy is that for the most part, the interaction among faculty, at least when I was there, was really terrific. People were personally friendly. On a professional basis, it was almost like a continuation of graduate school where you could argue with people, you could talk about science, you could talk about teaching, you could really work with people. Faculty developed unique working relationships maybe due to the fact that they were encompassed there. There was nothing to impede contact.

Q. Just one big department.

A. Yea, just one big department. Didn't always agree but for a long time the younger people on the faculty, (unintelligible), Dave and me and Hal and then Ray Dolscotch came in. Jack was always in with that group too. The people who were actively involved in research worked very well together.

Q. And this also had a positive effect on the undergraduate teaching as well. Cause you were not isolated in your own course or your own position.

A. We were talking cross courses. And it wasn't just the professional thing. I think we were all really friendly. We respected each other. There was a lot of mutual respect. It was very, very good and marvelous faculty group. As I look back at it, I think it was a unique group because, I'm talking about the time that I knew Bachman, I think it was superb teaching faculty. I think that that faculty really spent time on trying to give good material and present it well. I think the kids that went through, particularly the bright kids, got first class undergraduate pharmacy education. Absolutely first class. They were getting stuff that was right out of the edge of what was happening in the field. Really devoted time to that. And it was a pleasure. It was a real pleasure being a professor on that faculty. Everybody was involved. The involvement wasn't just sort of a transitory thing or surface phenomenon. You really believed. Dave Knapp joined the faculty in 1963. Dave Knapp and I became very close friends. I taught a little bit for Dave from time to time. I remember I gave a course on the sociology of the sick role, when Dave was away or something. But Dave and I got very close in terms of talking about curricular matters, particularly (unintelligible). Just liked each other. I wrote Dave a letter last week congratulating him on his award from the academy. I guess he's won the prize in pharmacy administration. And he wrote me back a letter just a week ago, thanking me for my letter, and reminding me of a time at an academy meeting twenty years ago, where he and I and Hal Wolfe and George Degraffy sat there listening to the award presentations being made and saying to each other, "Does anybody outside of pharmacy know who that guy is?" And hadn't remembered that evening. But Dave reminded me of it. Dave has

his head on his shoulders. And I see him from time to time. And I'll see him more in the Washington area. (Unintelligible), both. Interesting, unusual people. Carter Olson then came in 1963. Carter moved into the office right next to mine. In '63, maybe we weren't in the new building yet. I think in the new building Carter was right next to me. But Carter and I had mutual friends. Carter had spent some time in Wisconsin and also at Kansas. And we knew faculty together and Carter was made professor at Kansas. Adams was a close friend of Ed Smithsman who sort of was the whole linkage there. Again, Carter and I spent endless hours talking about all kinds of things. Chemistry, curriculum. Carter's (unintelligible) had a high percentage of faculty members on that faculty who were interested in music but were never (unintelligible). We developed close communication. The ability to actually argue about ideas and I think you have to develop a relationship with people to a certain point before you're willing to actually say, "This is what I believe or what I believe in and this is why."

Q. Risk taking.

A. Yea. But I think that characterized a lot of relationships on that topic. (Unintelligible). Phil came on the faculty, Phil Rodgers, for a little while then and I had a very special relationship with Phil because he was in that first class of mine. Phil was the first four point student in the College of Pharmacy. A stupendously good golfer and just a helluva nice guy. And Phil and I have always been special friends. I haven't seen him very often. From time to time, every time we do, we always both feel the same kind of good feeling of seeing each other again. It brings back good memories. The relationship as teacher-student had been developed and a relationship as friends was the way you would like to

think it really is. And is really was in that particular case.

Q. Is there other graduate students that you've kept in contact with?

A. Not very much. Of course, I see former students around town all the time. Some I remember their names; others I have a little difficulty with. I haven't seen John Pekor in years but John was another one on that class. We became good friends. That particular class, nice bunch of people, and they had a tough way to go with me. They had me a fresh-out-of-school assistant professor, trying to teach everything in the world in four quarters. But we had just very, very good personal relationships. That's one of the things I was really sad to see disappear in the late 60's and early 70's was that kind of relationship between faculty and students. Students being so resentful in the period of the 70's, not just here but everywhere. But in those early days, late 50's and early 60's, it was a real pleasure. You got to know each other, talk to each other fairly informally. I guess the students felt that you were supposed to challenge them. That it wasn't untold if the teacher would try to help the students to learn something. (Unintelligible). Because Lou Dobby, who has done work in the student health center, and Sally Dee, a very strange woman who I hear from time to time. I get letters sometimes from people in that class. It's very, very nice. Seeing some of the students a couple of years ago at the reunion was a real kick. And just some very, very nice people. And so it was a pleasure for Phil coming back on faculty. We really liked that. Bob Notarry, wonderful guy. Again, that interest in music. But Bob had very strange ideas on how things work, an interesting man who comes at the world from a different point of view very often. We never really taught

together but we talked a fair amount about teaching and about pharmacy. I began to believe toward the late 60's that the relationship between medicinal chemistry and pharmacology was at the graduate level. That structure action relationships were important for medicinal chemists and pharmacologists to understand in terms of their research. But in terms of the practice of pharmacy, it might be that the relationship between chemistry was really with pharmaceuticals. Because I didn't see where pharmacists were necessarily professionally involved in the structure action relationships outside of interests. But in the chemical properties of the drugs that you were working with, particularly if they were in hospital settings and dealing with mixtures and solvents and sterilizing, that's even much more practical to the relationships. And so we began to talk about things like that. And I had stayed on in the college I would have definitely pursued that very strongly.

Q. The physical chemistry?

A. At one time, like so many other people, I had in mind to write a book, a new medicinal chemistry book. I got very upset with all medicinal chemistry books. It seemed to me that they were at least 60% pharmacology and there were pharmacology books that were far better.

Q. In pharmacology?

A. In pharmacology, yea. But every medicinal chemistry book most of the chapters have to do pharmacological properties and so on and so forth. And I thought, "That's a pharmacology book." I had never seen a book, though, that talked about how to deal with predicting properties that drugs were likely to have and how they would most likely react

in various situations. So you could look at a drug and say, “Do you think you could sterilize this \_\_\_\_\_ solution \_\_\_\_\_?” Now that was a question that every once in a while Carter, in one of his senior classes, would send students in to me and ask that question. Come in and say, “Do you think anything would happen to this drug if we tried to sterilize a \_\_\_\_\_ solution \_\_\_\_\_?” And my general response that I learned from Smithson was, “What do you think? Never give a direct answer. “Let’s look at the structure.”

- A. Tape 4, Side A. Well, this takes us to about 1972 when I became increasingly uncomfortable and unhappy with the college. I felt a need for some kind of change. I was getting most of my satisfaction from other things, particularly the graduate council. And not really committed terribly to pharmacy any longer. Arguing with the dean about a variety of things and I remember very vividly coming home on a Friday afternoon after a faculty meeting, where he and I had a big disagreement. I believe it was about fiscal authority for division of checks, which I believed in and he did not. And the fact the (unintelligible) disagreed on very often. Came home on a Friday afternoon, very upset, had just left a faculty meeting, and got a phone call. And it was a phone call from Arliss Rhoden, who was a dean at the graduate school and asked me if I would meet him for lunch on Monday. And I said, “Sure.” And then I thought to myself, “What is this all about?” And I knew a new position as Associate Dean for Research in the graduate school had been established. I did not know that I was a candidate for that position. But the more I thought about it, the more I thought, “I bet you he’s going to ask me to take that position and if he asks me, I’m going to take it.” Very interesting and I liked

graduate school things. Sure enough, Monday came around and that's what it was and he asked me if I would accept that position. This was in February. And I told him I would and then I came back and talked to Lloyd Parks. And Rhoden had already talked to Parks and told Parks. I'll never forget that Parks was absolutely amazed. He couldn't understand why I wanted to be this professional. "Why are you doing this? Why do you want to do this? What makes you want to do that?" I said, "Well, unintelligible ... thought this would be a good thing to do." I don't think he ever understood that. But I did it. So I was sort of part-time for the spring quarter. I spent some of my time in the graduate school and some of my time in the college. And starting July 1, 1972, I moved over to the graduate school. And loved it. Just loved it.

Q. Before we get over to the graduate school, there's a couple other points about later years in the College of Pharmacy. This was a period of democratization of the faculty or feeling by the faculty that they should have more say in what they were doing. A couple of examples, was the Committee on Committees in 1959 and the development of the college into divisions. I wonder whether you could reflect on that.

A. The Committee on Committees never really impressed me terribly. I understood the desire on the part of people to have that sort of relationship with the dean. The Committee of \_\_\_\_\_ was fine. It was not (unintelligible). The division issue, on the other hand, was a very big one. I had mentioned just a few moments ago that I was in favor of divisionalization, but only if it carried both divisional responsibility and authority. And Parks was adamant on not giving physical authority to anyone but himself. And I opposed that publically, vocally. (Unintelligible). But there was never

any doubt in anyone's mind, including his or mine, about what my feelings were on the issue. Parks never could really let it go. And one of the sad things was, we probably mentioned this the last time we talked, but there were times when this man was so beset with problems, when Irene was sick and dying and so on, and several of us, me, Doscotch said, "Let us help you. You don't have to take all this on yourself. We can help with a whole variety of things." He couldn't do it. Just couldn't let go. (Unintelligible). Sitting here with every PA, with every order form coming across his desk (unintelligible). He wasted a great deal of time that could have been used better by someone with \_\_\_\_\_ experience, thinking about what was happening in pharmacy education. Even with detail, because he felt he couldn't even trust the faculty. And I was very opposed, I never told him this, I was very opposed to the action taken when he retired. Put him in charge of the graduate committee. The worst rule possible. It just carried out the same old thing. He couldn't trust the faculty if they responded to inquiries about the graduate program. He would do it and take care of it. It's more than paperwork. If you have someone doing it who is actively involved, the same argument (unintelligible).

Q. Do you think he felt he gave the division chairman physical responsibility, that they might leave for better positions?

A. No, I think he felt they would screw it up. The feeling that I've always had is that you have divisions or department chairmans and so on. The dean of the college \_\_\_\_\_ amount of money. And he divies it up between the division chairman, the department chairman, whatever, based on his conversations with them (unintelligible). But it's their money. Their responsibility to spend it wisely. And they make their cases to him for next

year's budget and so on and so forth. He deals with the overall \_\_\_\_\_, who most of these chairmen were. Did not do that.

Q. Parks says he was ambivalent about the whole idea of divisionalization anyway, without this physical responsibility.

A. I thought it was time. The groups had gotten so large that you needed some way of handling it. He was ambivalent about it for a lot of reasons, I guess one of which was that he still was operating the College of Pharmacy the way he was when he came in the beginning. He was in charge of everything. And many of us felt that he wasn't an effective member of the administration anymore. You have to delegate something to someone. You have to get people you trust with both the responsibility and authority. (Unintelligible).

Q. See me.

A. See me, sure. (Unintelligible) ... he did remarkable things. Great \_\_\_\_\_, but it was 20 years before I could bring myself to call him Lloyd.

Q. He did not encourage personal relationships with his faculty members. And I think he mentioned because he felt that he could not be an effective administrator by doing that.

A. I think that is unfortunate. He told me once, sitting in my kitchen, with Irene and \_\_\_\_\_, that dean and administrator (Unintelligible). ... mentioned about the compromise. That was one of the saddest things I had ever heard. ... cut off and isolated. He changed a little bit in his later years when (Unintelligible). ... isolated, lonely man. And you know, when he was at Wisconsin, he did all kinds of things. He raised Begonias, he was a superb craftsman with wood. He made all kinds of stuff. He was a big square dancer. And all

that \_\_\_\_\_, he got so tied up in this job and carrying the whole thing on his own shoulders, it seemed like he gave up everything else in his life, with the possible exception of playing a little golf once in a while. I found it a very sad thing. I hope he's having a good life now. I hope he's relaxed.

Q. My memories of Dean Parks, one time it was at the old building a power outage and we were all advised of this and told that the power is going to be off tomorrow, and please arrange to arrange your experiments and so on, work at home. Parks was there with a flashlight at his desk during the power outage catching up on some things.

A. Yea, very good. Let's move along.

Q. Yes, let's move along to your Associate Dean for Research and Development. Well I accepted that position in the graduate school and found it very, very stimulating. Was involved with developing a research budget for the university, developing a whole set of new research initiatives for the university, a small grant program. \_\_\_\_\_ paying money back to the departments to support research. Working with the search committee of the graduate council. And at that time, I also was involved in NIH too. So I was getting involved in second university administration. And the administration of (unintelligible).

Q. Your earlier side visits must have been a good background.

A. No question, no question. And the NIH experience. Not just the\_\_\_\_ but the whole way of seeing how money was used to support research in a variety of ways (unintelligible). I've always been very strongly faculty oriented in everything that I've done. And took that and used it in the graduate school. (Unintelligible) And it was very good. Two very exciting, very stimulating years. In May, 1974, Arliss Rhoden very suddenly announced

that he was leaving to become president of Tennessee Tech. There was not the slightest inkling of this. So there we were and he said he was leaving in June, he announced this in May, just disappeared.

Q. This was a time of some upheaval in central administration.

A. This was Fawcett's last year I believe. There had been various changes with Jim Robinson, Corbally (unintelligible). There was a search of course. I guess I felt from the beginning that it was quite likely that I would be a candidate for that and I would be nominated for that. And I speculated all summer as to what would happen. And one day, in the Autumn, September or so, Al Kuhn, he was then provost, called me and asked me if I would meet. I said, "Fine." So October, 1974, (unintelligible). That was a new title. It had been created in 1972 along with the position of Associate Dean for Research, to recognize the reorganization of the University, that put research and (unintelligible) quality, and authority in the graduate school basically. And at the graduate dean also serving as a member of the provost's staff and the graduate dean and the vice provost being principal university officials in research. I found that a very exciting, stimulating job. I've always liked operating in a university-wide setting. Lost almost total touch with the College of Pharmacy. When I was Associate Dean, I still taught. In fact, I (unintelligible) for a year. There was no way I could fit it together. I was as far as you can get from the College of Pharmacy physically. And I found eventually that unless I had a specific reason to go over to the college, I wasn't going over. I was involved with the entire campus. But I enjoyed it very, very much. Being involved with some of the folks over in the college, certainly those on the Undergraduate Council and also had many long

discussions with Al Sullaway on a variety of things. But basically had been functioning as a central university administrator for the last ten years.

Q. You were involved with the dean search?

A. I was involved with all dean searches.

Q. Well, for the College of Pharmacy.

A. Yea, but again, not in many different ways. Another interesting thing about being a graduate dean here is that I interview every prospective dean and chairman candidate for every department in the University. Today, for example, at 1:30 I'm interviewing a dean candidate, the third one I've interviewed, for the College of Biological Sciences. This is by University rule. And I find this very interesting. (Unintelligible) I've enjoyed working with them. I never worked for him in the sense that he is active faculty. But we've discussed a variety of issues with the graduate program. I don't have much view of the College of Pharmacy any longer. I've been involved with too many other different things to retain a strong relationship with the college. At one point in the last few years, I thought, "I've been dean for long enough. I think I'll go back to the college," but on reflection I found that it really wasn't a reasonable option for me. It struck me to think about that, that tenure really doesn't mean anything at all. The fact that I have tenure has no meaning for me. I don't have the discipline any longer to be tenured with, as far as I'm concerned. So sitting here, being graduate dean has been lots of fun. Other opportunities came along and largely as a result of the same kind of activities that I've been involved with for 20 years now. I stopped NIH in the mid-70's, but have been on a number of national committees and currently serve on the Board of the Council of

Graduate Schools and Graduate \_\_\_\_\_ and the African American \_\_\_\_\_.

And I found that I really liked that. And so the idea of going to Washington and serving on an organization like this, that's the way you spend all your time is very exciting, very stimulating at this point in my life. This is a total change for me. The first time out of the University since I was 18 years old. And that makes it difficult. Also, cause I feel very strongly about graduate education, committed to the idea of graduate education, that's what I'm supposed to do in this job is make argument.

Q. Could you describe what your responsibilities are maybe?

A. The Council of Graduate Schools in the United States is an organization of many other education organizations. That is, its members are universities. And this organization is composed of about 380 members, universities that have graduate schools that are more than single program graduate schools. \_\_\_\_\_ acceptance for membership in the Council, you have to have at least three, I believe, different graduate programs and have a certain undergraduate number.

Q. At the Ph.D. level?

A. Everything. So it really is varied and represents basically all of American graduate education. I guess there are about three major roles for any organization like this. One is it's a forum providing organization. It brings the members together in a variety of ways to discuss issues of interest to the membership. An organization like CGS has a national meeting, it runs a workshop for meetings in the summer time, there are regional organizations, forums around the country that are affiliated with the main organization that also provides opportunity for graduate deans to come together and discuss issues, talk

about their program, and so on. So that's one thing. Secondly, it's a coalition forming organization and that's related to federal legislation. It's a very important role. It's not a lobbying role technically. What it is, is maintaining a presence in Washington and working with other organizations to talk to legislators, to testify, to talk to members of congressional staffs, about any legislation that affects graduate education, and to be there to articulate the graduate education point of view.

Q. Close to being a lobbyist?

A. Yea. But the way this organization and most of the others work is largely by having someone on your staff who is a legislative guy who keeps tabs on all this, writes memos to the membership about House Bill so on and so forth, what it really means is this, this and this, and this and that will happen. And talking to people around the country who feel that we feel should be supporting this or against that or whatever. Trying to get the membership involved actively. Trying to get up to testify and some of the time testifying myself. But will probably even be more the case, selecting a graduate dean around the country who has just the right credentials and perhaps relationships with people on that committee to come in and testify, depending on what the issue was. And then basically writing testimony for that, writing prepared testimony. I've been in that position, sort of like the hired guy to come in, and I've testified once last year, for example, for an organization called the, I don't remember the acronym anymore. It's a group of organizations about international exchange program. Educational Exchange Liaison Group. And there was some state department that was conducting hearings on international activities and I was asked if I would come to Washington and testify. And

basically they wrote up several pages of testimony, sent it to me, I fiddled around with it some. I was in Washington early that morning. We sat down in the office and played around with that testimony some more. They had all the facts there. This is a common thing. I was asked to do that because a graduate dean at a large institution, I was also the chairman elect of the Board of the Council of Graduate Schools at that time, and I have strong international interest. We would be asking graduate deans who had specific interest in whatever the interest might be, to come and talk. So that's basically it. There's a lot of interaction with Washington-based associations.

Q. Like AACP and AHA from the pharmacy standpoint.

A. That's right. And there are basically two kinds of organizations. One were the education associations, like ACE and the Land Grant Association, and so on. And the other are the professional organizations, like APHA and so on. And coalitions form all the time. All these organizations are there to try to advance their point of view. But you generally try to get others together with you, depending on what the particular issue is. The difficult issues were formed for different issues. So there was a great deal of time spent meeting with people and these other organizations, talking about the specific issues from your perspective. You also deal with the agencies of the federal government from the point of view of the graduate community, it's very important. NSF, NIH, NEH, NEA. Because these organizations provide pharmacy. They support graduate education. That's basically what it is.

Q. How did this position come to your attention?

A. Well, I had been on the Board now for four years. The current president announced about

a year and a half ago that he was not going to seek another term. He was going to retire. So a search committee was started. I was informed that I had been nominated, did I want to be a candidate. I said, "Yes, I do." (Unintelligible). Around Christmas break I was told that I was one that they wanted to be president. And asked me if I wanted the job, and I said, "Yea." That's where it is. Looking forward to it with great enthusiasm. With fond farewell to Ohio State University. It's been a long and by and large a very good time here.

Q. What changes have you seen in the overall graduate education area since you started as a graduate student yourself?

A. A large number of people are coming to graduate education who are basically older today. Large number of changes made in undergraduate education and \_\_\_\_\_ high school.

Q. We can always find somebody else to blame.

A. Yea. The question that's been intriguing is what is graduate education supposed to be? And I've always thought of it as advanced. But I can't discover what it's supposed to be advanced related to. What is basic. I think there's been an incredible vocational \_\_\_\_\_ of grammar schools, high schools, and undergraduate schools. Graduate schools were always vocational. Graduate schools are supposed to be vocational. I'm using vocational in a very broad sense, but whether you're going to be a vocational scholar or anything, the graduate school's focus, again, is based on the premise is what comes before is some sort of general education. Read, write, think about things. (Unintelligible) But that really is not happening very much, although it's changing. It's beginning to change. But in past years, several decades, it's gone the other way. So students are passed through a school

system, come to graduate school and find that they don't read very well or write very well.

Q. Or think very well.

A. Or think very well. And what happens too often, is that the whole level sinks to accommodate what you have to work with.

Q. \_\_\_\_\_ and all.

A. Yea, absolutely. So I think we give graduate degrees, we being all graduating \_\_\_\_\_, for something that would not have been a senior thesis seven years ago. It's a question of what their intentions are.

Q. People are going to graduate school for the wrong reasons?

A. Many people are going graduate school because they have to in order to get a particular certification for a particular job. And very often what that certificates is supposed to connote, has no relationship to anything. I think some jobs require masters degree and some particular jobs it can be a masters degree in anything. It doesn't make any difference because what the substance is has nothing to do with the job you can do anyway, but you need the masters degree. I have students come up to me and say, "I think I'll go after a Ph.D. Might as well. It's not hard to get in some fields. All you have to do is put your time in. It would be good to have that after my name. There are more jobs available." I find that appalling. Really appalling. It's an incredible waste of resources among other things. But it's \_\_\_\_\_. Graduate education has become \_\_\_\_\_ vocational in the wrong sense.

Q. This would apply to scientific graduate programs as well.

- A. Uh-huh. And it many scientific graduate programs (Unintelligible). Not the best program. The best programs in the country are still holding the line, largely because they can afford to. They've got the best students, they have a lot of choice, and they by and large are turning up a little broader. A lot of other schools are so tied up with taking in large numbers of students, that faculty get excessive advising loads, students go through doing pretty much what they please, with very little guidance in many cases. I talk to students all the time who are very confused about what a dissertation is, for example, Most of them feel that they do a dissertation simply because it's required here. And I've talked to seminars over in education for years now and raised the question of whether the substance of the dissertation topic (unintelligible). And that's a question that puzzles me. (Unintelligible). Most of them would say, "No, no, as long as you do a piece of work, do it according to the methodology that you're supposed to do it with. (Unintelligible)
- Q. Certainly there's been a tremendous increase in technology and information systems and so on in graduate education of all kinds. I think graduate work in the 50's, where there's still a good deal of hands on organic analysis and so on, and now it's done by very expensive machinery. And that is a given. And students are expected to go beyond that and bring a lot of background that, in many cases, their professors did not have.
- A. I look at graduate education across the country. There's a lot of good and there's a lot of bad. All the good isn't at the Ph.D. level, some at the \_\_\_\_\_ level. But there are real problems (Unintelligible) and they are going to be extremely difficult to solve because society has demanded everyone continue to go on to school. Qualified or not qualified and they come out with some kind of degree.

Q. It's becoming more typical for people to get post-doctoral training before they go out.

A. Well Robert Hutchins one time said, "Everyone ought to be given a bachelor's degree at birth." Now it's getting to be a master's degree. Just give everyone a master's degree.

(Unintelligible). I get very cynical about some of these things. We have lots of first class graduate students here who do beautiful work. And a whole college of people who are just spending their time and have no particular interest in the subject.

Q. Now you're talking about Ohio State in general or nationwide?

A. Nationwide.

Q. How would you say that Ohio State ranks now that you've had an opportunity to see?

A. I think it's in a class institutions, large state institutions (unintelligible). And in that class it's a fine school. It's not one of the top schools. Some departments are. Now we're talking about fifty or so departments. Basically would characterize Ohio State as it's not bad in any of it, but it's also not distinguished in any of it. Comes close in some. But that's an old problem here. Problem in my view of very poor administrative leadership, historically and now.

Q. You've had experience with there presidents, at least as work with graduate school has been working more closely with them (unintelligible). Would you care to reflect on that?

A. Well, the first one was Novice Fawcett, who never understood what universities were about. It was a disgrace, a man who had come to this University from being superintendent of public schools in Columbus. A man who had no degree, no Ph.D. degree, to a major state university. And never understood faculty, never understood students. Encouraged when money was available (unintelligible).

Q. Bricks and mortar?

A. Bricks and mortar. And the concept of quality never meant anything. Harold Enarson came in here with a great deal of charisma and personal charm, interesting man, great deal of style. He did not like faculty. Felt most comfortable being with undergraduate students. Populus, fighting by the rule of elitism. He wanted to talk about elitist kinds of things. Major contributions to this campus had to do with the beautification of the campus, the physical beautification of the campus. Planted a lot of trees and bushes and things like that. Perhaps the worst personnel decisions that I've ever seen were (unintelligible). Jennings came in, interesting man. First president here since I've been here who ever earned tenure in an academic department. Fawcett was never a faculty member, Harold Enarson was an assistant professor here and there for a couple of years, and then (unintelligible). Never went the rest of the way. Jennings was an assistant professor, full professor, department chairman, and so on and so forth. He's been there. His major attribute that I've seen is his great positive nature. He's one of the most positive people I've ever seen, in contrast to Enarson, who was one of the most negative people I've ever seen. Jennings was all, "Let's get 'um guys." And he said all the right things about quality, about academic quality. So I find it encouraging at this point. I think he's got a very good provost and I hope good things happen here at the University. This is a time of great turnover. There are more things turning over than have been in the past, since about 1972. There was a big turnover between '72 and '74. Right now, for example, outside of \_\_\_\_\_ Eppert, Collin Buhl is the most \_\_\_\_\_ dean on this campus. Every other dean has changed. And things just change, social and behavioral, just changed

agriculture, change in graduate school. (Unintelligible).

Q. Really?

A. The administrative structure is set up now that makes it very difficult to understand why someone had the position as dean of the graduate school. And also (unintelligible).

Biological sciences is bringing in a new dean. A lot of change. (Unintelligible). Social

work just brought in a new dean, education just brought in a new dean. College of

Nursing and Home Ec, both have a new dean. That's a lot of change. With a new

president and a new provost, there's nobody around anymore. It's interesting. There's no

one in the provost's office who was around in academic areas when (unintelligible).

\_\_\_\_\_ which is characteristic of what I hear that Jennings (unintelligible). I'll be very interested in watching from afar what happens.

Q. It seems to me that over your career you've been blessed by serendipity. From the very beginning, from your freshman year in college, you had an opportunity to do some research, you seemed to be at the right place at the right time. If not asked to do things, certainly just sort of fell into many of the opportunities which you've had.

A. I agree with that. (Unintelligible). But I've been at the right place at the right time. Met some interesting people, good opportunities. I feel very satisfied at this point in my career. It's moved along and done a variety of things and continue I guess to find things to do that I'm really interested in. And I've been lucky that when my interest has begun to wane, something else has come along. Of course, in this particular case, with the Council of the Graduate Schools, this is something that I have built for myself through national activities that go back a long way. In other words, that's the \_\_\_\_\_ part of this without

always being involved somehow nationally with my professional organizations, with NIH, with graduate organizations, and so on. And so that creates several lines on the vitae which are important ones. \_\_\_\_\_ very few positions. People don't really need to. Move everyplace just for the sake of the move. Something that I didn't want to do.

Q. What would you say has been the most satisfying accomplishment up to this point?

A. Surviving at Ohio State. There were some very difficult years and it's very satisfying to have gotten through those years. The most satisfying thing for me I guess is my relationship with faculty (unintelligible). Good friends and colleagues on this faculty. Always had that feeling in the College of Pharmacy. Coming into the graduate school has really extended that across campus to almost every department in the university. I have people that I care about and it's a good feeling. That's the most satisfying.

Q. Your biggest disappointment?

A. That's an interesting question. When Al Kuhn left the provostship there, many people on campus felt that the two most logical inside candidates for that were \_\_\_\_\_ and me. And they were right. We were. By background, by a whole variety of things. And it became very clear early on in the game that the president was committed to bring a woman into that position. And there were no inside candidates, which I found appalling. I found it very disappointing. I found it a real slap in the face. It took me a while to get through that one. And to realize it had nothing to do with my credentials. But with me, it had been a bad decision.

Q. It was a hard realization to come to grips with.

A. Uh-huh. I simply couldn't understand how I could now be interviewed by the search

committee for this. I was functioning as a graduate dean and vice provost for research and was a campus wide responsibility and authority and was popular with the faculty. And never even interviewed for the job. What's wrong with me? And upon thinking about that, it became very clear that that was a set up from the beginning. One of the things I found in interviewing for jobs, and I think it makes a good deal of sense, is if you make the final cut for a job, and from then on has nothing to do with your credentials. If you've got this big search for something, it's going to end up where the search committee is going to submit three names to the president. If you're on that list of three, that means that as far as the search process is concerned, you made it. Now the president then makes his decision on a whole variety of factors which may be because he likes the socks you wear. And I've always been totally content with that whole process. It was a disappointment for me not to even be interviewed for this job. In retrospect, (unintelligible). If I had gotten that job, I probably would have gone crazy.