Marilyn K. Speedie, Ph.D.
Narrator

Lauren N. Ruhrold
Interviewer

COLLEGE OF PHARMACY
ORAL HISTORY PROJECT

UNIVERSITY OF MINNESOTA

College of Pharmacy
Oral History Project

The College of Pharmacy Oral History Project preserves the memories of individuals who have been direct observers of and participants in the history and evolution of the University of Minnesota College of Pharmacy. By conducting interviews with key individuals, this project enriches the College's understanding of its own past while also contributing to the historical record. It likewise helps to ensure that the College's legacy is documented, preserved, and made accessible to researchers and the public.

Biographical Sketch

Dr. Marilyn K. Speedie was born and raised in Salem, Oregon. She earned her B.S. in pharmacy in 1970 and Ph.D. in medicinal chemistry and pharmacognosy in 1973, both from Purdue University. Before graduating, she became assistant professor of pharmacognosy at Oregon State University. She then moved, in 1975, to the University of Maryland to become assistant professor of pharmacognosy. Dr. Speedie was promoted to associate professor in 1980 and full professor in 1991. While at the University of Maryland, she also served as chairman of the Department of Biomedicinal Chemistry (1989-1993) and as chairman of the Department of Pharmaceutical Sciences (1993-1995). She then became dean and professor at the University of Minnesota College of Pharmacy, positions she held from 1996 to 2017. In addition to her university commitments, Dr. Speedie served for the American Association of Colleges of Pharmacy as president (2006-2007) and on the board of directors (2005-2008). She also served on the board of directors for the National Institute for Pharmaceutical Technology and Education (2007-2017) and two terms on the board of trustees for the United States Pharmacopeia (2010-2020).

Prior to the onset of her administrative responsibilities, Dr. Speedie devoted her research career to the study of enzymology and molecular biology of antibiotic biosynthesis, the expression and secretion of recombinant proteins in streptomycetes, and the microbial biodegradation of pesticides and other pollutants. Her more recent scholarship focuses on the advancement of professional and interprofessional practice. Dr. Speedie has authored or co-authored over 85 peer-reviewed articles and several book chapters. She co-authored *Pharmacognosy and Pharmacobiotechnology* (1996) and has published in the *American Journal of Pharmaceutical Education*. Dr. Speedie has received numerous honors and awards for her scholarly contributions. In 1993, she was named Distinguished Alumna of Purdue University College of Pharmacy. In 1994, Dr. Speedie received the Paul Dawson Biotechnology Award from the American Association of Colleges of Pharmacy. In 1996, she was made a Fellow of the American Association of Pharmaceutical Scientists. In 2003, she was awarded the Hugh F. Kabat Award from the Minnesota Society of Health-System Pharmacists. Dr. Speedie received the Harold R. Popp Award from the Minnesota Pharmacists Association and the National Career Achievement Award from Kappa Epsilon, both in 2010. She was awarded the 2014 Remington Honor Medal by the American Pharmacists Association, the APhA's highest honor. Dr. Speedie received the Lawrence C. and Delores M. Weaver Medal from the University of Minnesota College of Pharmacy in 2014 and the Hallie Bruce Memorial Lecture Award from the Minnesota Society of Health-System Pharmacists in 2017.

Interview Abstract

Dr. Speedie begins part one of her interview by describing her early life and educational background. She reflects on her undergraduate education at Purdue University, discussing her early experiences working in community pharmacies and her exposure to laboratory research. She briefly discusses her time in graduate school and reflects on her return to Oregon following graduation. She discusses her move to Baltimore, as well as her becoming assistant professor and department head at the University of Maryland. Dr. Speedie then reflects on being recruited to the University of Minnesota. She discusses the appeal of an administrative position, as well as her ongoing interest in teaching and research. She reflects on the chaotic state of the University of Minnesota College of Pharmacy upon her arrival, the mentorship she received, and the openness of the pharmacy profession to women. Dr. Speedie then discusses some of the College's more famous research projects, including investigations into epilepsy, HIV, and opioids. She then details the founding of the Rural Health School and the impetus behind the Duluth expansion. She concludes by comparing revisions made to the College of Pharmacy curriculum in 1995 and 2013 and by reflecting on faculty responses to those changes.

Dr. Speedie begins part two of her interview by offering some additional comments about curricular design and the contributions of specific people to that project. She then reflects on changes in pharmacy practice in the mid 2000s, describing the significance of medication therapy management (MTM), collaborative practice, and pharmaceutical care. She then discusses the changing status of the Pharm.D. degree. Dr. Speedie then reflects on the founding and vision behind the Doctor of Pharmacy Program for Practicing Pharmacists (DP4). She then describes the relationship between academic and practicing pharmacists and discusses Dr. Lawrence Weaver's role in bridging these groups. She discusses the significance of the Center for Leading Health Care Change and the Academic Health Center (AHC). She briefly reflects on the difficulties involved with connecting the College of Pharmacy and Fairview Health Services and with securing physical space for the College. Dr. Speedie concludes by commenting on her position as the first female dean and on the future of pharmacy enrollments.

Interview with Doctor Marilyn K. Speedie
Part One

Interviewed by Lauren N. Ruhrold

Interviewed for the College of Pharmacy Oral History Project
University of Minnesota

Interviewed in 717 Delaware
on the University of Minnesota Campus

Interviewed on July 31, 2019

Marilyn K. Speedie: MS
Lauren N. Ruhrold: LR

LR: This is Lauren Ruhrold. I'm here with Doctor Marilyn K. Speedie. It's July 31, 2019. We're in Doctor Speedie's office in Room 484, in 717 Delaware.

Thank you for meeting with me today.

MS: Yes.

LR: To get us started, can you tell me a bit about where you were born and raised and your educational background?

MS: I was born in Salem, Oregon, raised in Salem until I was seven, and, then, in Roseburg, which is a small town about two-thirds of the way south on I-5 [Interstate Highway 5], the timber capital of the world. I went to public high school in Roseburg. Roseburg is a great place to be from. It's not a great place to go back to.

My father was quite anxious—I'm the oldest of three and we were all raised with the idea that you will go to college—that we leave Oregon, because of the ethnocentricity of Oregonians. If you go to the University of Oregon or Oregon State, half your high school class goes there and they come back to Roseburg after college and it's a very limited environment. It's very non-diverse, a great disparity of income. We had some wealthy lumber people and, then, we had a lot of people who lived paycheck to paycheck, and sometimes not a paycheck, who worked in the woods. So he wanted us to leave.

I was a *Sputnik* baby, is what I call it. I was twelve when *Sputnik* went up. They took a group of us in junior high, at that point, and advanced us in math and science in response to competition with the Russians. So, I really had superb math and science teachers through high school and not so superb on other topics. I was definitely into science and math and I was looking for some way to apply that. I didn't think I wanted to teach—of course, I

changed my mind later. I wasn't sure I was going to get through undergrad much less go to graduate school. I was looking for something I could do with an undergraduate education.

I went to Purdue [University] in Indiana. That was east to me, east to my father. Everybody was happy. It had a top-ranked pharmacy school at the time. So I did a year just of pre-pharmacy. I could have gone into chemistry or pharmacy. I liked the pre-pharmacy. I liked the combination of biology and chemistry. One of my girlfriend's father in Roseburg was a pharmacist, so I had a role model. So I went into pharmacy and it was, then, a one-four program, so it was five years total to a B.S. in pharmacy. At Purdue, you went in after one year and, then, you had the four years following. I liked the courses.

I interned at a pharmacy called Payless Drug Store that really did not practice pharmacy the way now we would like to practice it. The pharmacists were behind a tall counter. They filled prescriptions in an assembly line sort of function. The only one who talked to the patient was the clerk. I was pretty disillusioned with the profession, at that point. I did that for two summers in between my first-second, second-third year.

I also started working in a lab. They asked for volunteers out of the chemistry class, people who might want to do research, and I raised my hand and got assigned to a laboratory with Doctor Heinz [G.] Floss and Doctor Ulfert Hornemann. I was doing microbiological, antibiotic biosynthesis chemistry research—you know, ten hours a week, whatever, in addition to course work.

I had not had a good pharmacy experience, so I was really committed to going to graduate school.

Along the way, I did get into a superb pharmacy in Attica, Indiana, which was twenty miles southwest of Lafayette, working for the Evans brothers, who had a pharmacy in the town of 5,000. They *completely* took care of the health care of that town. It was just amazing. They kept patient records. They would refill prescriptions sometimes without a doctor's authorization. They would use every means possible to make sure that the patient got what they needed. That was *so* eye opening to me of what a pharmacist could do, and especially in a rural setting. I worked for them, did my formal internship with them, got licensed, started graduate school. During graduate school, they let me come any Thursday and any Saturday to work for them. They farmed, so they were happy to have days off. I got to know the community and the people and developed a vision of what a pharmacy practice could be. That was really the draw back into the profession for me, which was a good thing. I was teaching pharmacy students. It's good to have a vision of that.

I got my Ph.D. in really microbial biochemistry is what you'd probably call it. It became biotechnology over the years as the genetic part developed. I still kept a finger in the profession. The other part that was going on was the Vietnam War, at that point. My husband [Stuart M. Speedie] and I got married after three years of college. He only had four years of undergraduate so he had started graduate school so he didn't have go to the draft…all we were doing. So I was pretty limited to staying at Purdue for graduate work.

That worked out just fine because it's a big university, as is Minnesota, and there was lots of opportunity to pull from. So there wasn't any limitation in what I could do. It was very broad. So I got my Ph.D.

We went back to Oregon for two years thinking we'd go home again and you can't really go home again. We both had temporary jobs and they were 100 miles apart, I guess, somewhere in there. We lived in the middle. We were both driving. We had the first gas crunch in 1974. Then, I got pregnant with my first child. It was obvious we needed to move.

Baltimore was where there were two jobs, two Ph.D. jobs. They [University of Maryland] recruited both of us, hired me when I was eight months pregnant. Five weeks after my daughter was born, we moved 3,000 miles away from family, away from everything, and started two tenure-track jobs. [chuckles]

LR: Goodness.

MS: Yes, that was a challenge, but it worked. We like Baltimore. It's a very diverse city. It has lots of ethnicity and lots of interesting things to do. It was on the water and we like sailing. We made friends, so Baltimore was a good place for us. We both went through the ranks.

Through all of that, doing science, basic science, biotechnology, I always kept one finger in the profession, not actually practicing. I never had a license in Maryland. My license is in Indiana. Because I was female, a basic scientist, and close to Washington, and a pharmacist, I got put on all kinds of committees and things about the profession through the American Association of Colleges of Pharmacy, but, sometimes, other things, as well. So, I was following the profession more than most basic science faculty, because I *cared* about it but, also, because I was on these various committees and involved with it.

In 1989, I think—maybe it was earlier; I'm trying to think what the dates were on that—[William J.] Bill Kinnard [Jr.] was dean. Ralph [N.] Blomster was department head of Medicinal Chemistry and Pharmacognosy. Ralph was having a number of personal problems and losing his efficacy. Kinnard took me out to lunch and said, "I want you to be department head." I said, "No." [laughter] No, thank you. In the ten-member department, I'm the youngest, only female. This doesn't sound like a good idea. But he was persuasive.

LR: This was at Maryland?

MS: At the University of Maryland, Baltimore.

I became department head in 1989, I think, and pretty much had to turn the department around from being non-productive to being productive. I had some positions to fill, so I had some leverage. We were able to spend money differently to reward people. Anyway, we were able to turn that department around.

In 1992, there were three basic science departments: Pharmacology, Pharmaceutics, and what we had renamed Biomedicinal Chemistry. The University had three pharmacology departments and they were threatening combining our department with the med schools or whatever, unless we combined our basic science departments. So, we decided we would combine departments. It was Biomedicinal Chemistry, Pharmacology, and Pharmaceutics. They did a national search, at that point, and selected me.

I had thirty faculty. I had, I think, eight positions to fill. We filled them at the boundaries of these disciplines, so people had to be cross-disciplinary. We mounted this big effort and, actually, people were with me. It was a good experience. Also, with thirty people, I did hire a department manager, a woman from Mississippi, Amy, who taught me everything I know about finance and HR [human resources]. She was an M.B.A.

LR: Do you remember her last name?

MS: Yes. Sevier, S-e-v-i-e-r.

Ten people, you can run just by logic. Thirty people, you need some assistance. So Amy developed systems and taught me finance and HR and everything else. We were a team. I did that for three, three and a half, four years.

I sort of got pulled into the deanship through several things. The profession was changing with pharmaceutical care. Again, I'd been at meetings and I'd been on the Pew Commission looking at what pharmacists could do, so I was really with the changes in the profession, the Pharm.D. and all of that. Also, by then, Dave [David A.] Knapp was dean and he had made us into two departments. He used the two of us; George Dukes was chair of clinical and I was chair of the pharmaceutical sciences. He used us as sort of his cabinet. I knew what was going on the clinical side and George knew what was going on in the basic science side. That also broadened my scope of knowledge of what a whole school would look like.

LR: To clarify for listeners, this is still at Maryland?

MS: This is still at Maryland. Yes.

I was getting a variety of calls to apply for deanships. The female basic scientist, good school…I had a research career, and research awards, and teaching awards. People were looking at me and I was declining. I was forty-six, forty-seven, forty-eight, in there.

[Lawrence C.] Larry Weaver, I had met when he was, I think, in Washington. He was at our house for some social event, I remember. Anyway, Larry was after me to apply for [University of] Minnesota. Larry gets what he wants. [laughter] He was very persuasive about Minnesota. Also, I had met some Minnesotans. I knew Jim [James] Cloyd [III]. We'd been at Purdue together. I knew [David] Dave Angaran, who was on the faculty here and went to Florida later. I knew Howard Juni in the community. Everything I knew about

Minnesota was good—Larry Weaver—except this reputation they had for having flipped through deans, not being able to fill the deanship.

I applied. I thought, well, if I'm going to do this, I'm sort of at a crossroads. I had two grants that I had not written the renewals for. We were doing the research. You always have to be ahead. Thirty people managing is a lot to keep a full research program going—and a full teaching load. Probably one of the errors I made is that I'd never passed off my teaching load, because I liked doing it. I wanted to hire other people…who knows.

LR: You were maintaining the teaching and the research load as department head and as dean?

MS: No, as department head.

I was sort of at a crossroads myself in terms of having to decide am I going to be a researcher and a teacher. How do you do that and manage a thirty-person department? Or was I going to take a leap to the other side and be a dean?

LR: You have all of these developments in your career prior to coming to Minnesota.

MS: Yes.

LR: What was appealing to you about the administrative side of things?

MS: Influencing the profession.

I decided that that was the time to make a decision about influencing the future of the profession. If I was going to do it, I wanted to do it where there were fewer barriers. Okay? Minnesota was advanced, is advanced. They had a board and an association and the college that had worked together in the past. The relationships that you need to do those sorts of things were established. It had *really* good faculty who were unhappy. Now, people say, "Why did you come with all that?" That was apparent. They had created an SOS Committee, Save our School. I think part of it was naiveté. I had brought thirty people together into a department, diverse people. I thought, oh, I can do this!

It wasn't easy. They did not want to be a unit. But they were really good productive faculty. So you weren't starting from a base of non productivity or non excellence. You were starting with a group that was unhappy.

LR: When you were at Maryland, what strategies did you use to pull those people together?

MS: Well, it was mostly forming the hiring committees across the lines. But, then, they actually took off. We had an option of whether we would create a graduate program with the three tracks or all one program. The faculty were the ones who pushed to have all one program. It was very innovative. They were onboard. I think the strategy really that

worked was having them work together on hires, because there was a benefit for them. They had to learn about each other to do that and they had to reach consensus.

You come in *here* where there weren't resources, at that point. They had voted to go to the all Pharm.D. and were working on a curriculum, which is good. That pulls people together. And I thought I could do it. I was naïve about my capabilities, I think, or about the amount of challenge. And I had Larry pushing me all the way.

I was one of eight candidates that they interviewed. It was William [R.] Brody, the AHC [Academic Health Center] vice president, who was recruiting me. He hadn't fully launched his QRTC [Quality, Reengineering, and Technology Committee], his revolution, at the time he hired me. I got hired in mid August [1995]. If I had known what he was doing that fall, I'm not sure I would have come. By January, he's telling me that maybe he's not going to have deans. I'm sorry you moved your whole family and disrupted your whole life and maybe we're not going to have deans. [laughter] I might have run the other way.

I think by then I was fairly committed to looking at deanships. I probably would have gone somewhere, at that point. But Minnesota was there. There was a need. I thought I could do it. There was a good, sound base. There was excellent precedent of the profession moving forward *and* they did recruit a spousal hire without calling him a spousal hire. It was a good opportunity for Stuart, as well, because he was in informatics and they had no informatics at Maryland. He was *it* at Maryland.

LR: Was his Ph.D. in informatics?

MS: No, in educational research, but always computers and he was doing computer applications in pharmacy, as his research area, at that point, in medicine. He's broadened since he came here. So it was good for the family and we moved.

LR: Can you say more about your interest in the administrative side of pharmacy and the ability to make changes in the profession? When you were starting your career in administration, what was it that you were hoping to change?

MS: At the deanship or at the…?

LR: When you were leaving Maryland and coming into the deanship position, what were you hoping to change?

MS: Oh, the practice. What I was hoping to change was the practice of pharmacy so that we implemented patient care, a role of pharmacists in an ambulatory environment, in a community environment.

That was Linda [Linda M.] Strand. That's the other thing was that pharmaceutical care was coming *out* of Minnesota and Florida. They were here, you know. This was not the only birthplace but, certainly, with everything that Larry and Bob [Robert J. Cipolle] and Linda had done, this was a place where I thought it could happen. If it was going to happen,

this was a place where it could happen. I wasn't particularly anxious to take this on in a place where you have… There are places that have so many barriers in terms of uncooperative associations, uncooperative boards of pharmacy, legal restrictions, that making it happen is like Sisyphus pushing the rock uphill. I thought we could do it in Minnesota—and I think we have, largely. Yes, I think it fulfilled those desires as much as a dean can influence practice and draw connections with practice. You're educating pharmacists in a certain way to take jobs. It is those pharmacists who go out and take the jobs and the employers that create the jobs that really create the change, but you're helping with the vision and you're helping with who you're training and how those graduating pharmacists are prepared to do patient care.

LR: To go back a little bit to your time in grad school but, also, your early professional years, what was your sense at that time as to how open the profession was to women?

MS: Well, the class at Purdue was ten percent women. We were a minority. I don't think I ever felt that that was a problem. Certainly, when the Evanses hired me, they had another woman pharmacist that they had hired. It didn't feel like a barrier. There were experiences in grad school… I'm a chemist and that's the lowest percentage of women. I was on the biological side of the chemistry, which is, also, sort of the poor relative, if you will, in those departments. I think there was some discrimination among the male grad students. The story I always tell is the one where they were forming a softball team and wanted me to be cheerleader because I "couldn't play." They said I was the only woman—which was even worse. I wasn't the only woman, I was the only Caucasian woman. This is Indiana—not to disparage Indiana. We spent nine years there. In that era, I think there was discrimination, but I didn't experience much blatantly otherwise. As I said, I got hired when I was pregnant. I was the only woman in the department. Was I left out of some of the social interaction? Yes, probably, but we had friends within the College and elsewhere. I'm not sure I was terribly aware of when I was being discriminated against. I don't *know* what those guys thought when I was made department head. I'm sure they were skeptical. You know, I was the youngest and I was the only female out of ten. I don't think I was particularly aware of discrimination, at that point. Yes.

LR: Another thing that you mentioned earlier was keeping your finger on the profession as you moved into these administrative roles. Did you ever seriously consider going into practicing?

MS: Ummm… Nooo. Ummm… I really love doing science. I love teaching. I loved what I was doing. It's sort of an either/or. You can't practice *and* be a basic scientist. It's not compatible. I think you can be a practitioner and a researcher of practice, but I was doing biotechnology, antibiotic biosynthesis and environmental biodegradation. I loved it. [laughter] On the other hand, we're educating pharmacists and I think you get much further educating pharmacists if you understand the profession. I had plenty of friends in practice.

Karen Plaisance was an infectious disease specialist. She must be ten years younger than I am and they hired her. She came and plopped in my office and said, "I'm going to take over your courses." I said, "No, you aren't." [laughter] I was teaching antibiotics and

infectious disease. She denies that, by the way. But we collaborated on what we called the ABID, Antibiotics and Infectious Disease, course and co-taught it, taught it together. It was a wonderful experience for me to understand the clinician perspective on it. We started out teaching an infectious disease elective, which I had taught before, but she was certainly much more experienced. What we learned was that there was sometimes basic science information and clinical practice and they don't always meet in the middle. So rather than the students saying, "Well, we have to know who is lecturing to know how to answer the question," we'd say, "Let's figure this out." Where there were discrepancies, we would acknowledge those discrepancies. Basic science says you should be doing it this way but practice is doing it this way. Why? Think about that as a student. We were stimulating the class. She was a superb teacher and a superb clinician. My courses had this that I was comfortable with teaching practitioners because I had Karen to bring in the realistic clinical piece of it. I did that more than ABID, more than antibiotics and infectious disease. I did it with other faculty on, like, clinical testing and so on, where you'd bring in a basic science piece of it and a practice piece. I think they were excellent courses. The students liked them. We won awards. I was learning practice, keeping up with practice at the same time I was doing my research. It was fun.

LR: What about teaching and research was appealing to you?

MS: Teaching is a daily high. You prepare. You present it. You're performing. It's an upper. Research is frustrating in that you're putting together pieces of knowledge and sometimes it works and sometimes it doesn't. When it really all comes together, the high is higher than teaching—and the lows are lower than teaching. But together, you get that sort of balance, I think, of research and teaching. Research is on a bigger scale. You're contributing pieces of knowledge. You go to a national meeting and you're contributing a piece of knowledge that somebody else is going to take and do something with. So you're contributing to this whole big picture of something. Teaching is much more localized. Yes, you're training pharmacists for the future or Ph.D.s for the future, but it's on a different scale. The combination of those, I thought was really very exciting and allowed more than one way to get your kicks. [laughter]

LR: Can you talk about your interest in biotechnology and how that emerged?

MS: Sure. I was working with micro organisms. I had done a summer at Cold Spring Harbor [Laboratory, New York] in 1972. They were just figuring out recombinant DNA. The students were grad students, and they were doing E-coli genetics, and they were afraid that there was no future to E-coli genetics and that in the field everything that could be done was done…no idea what cloning was going to do. They were just then doing the recombinant technology in the *literature*. We worked in the lab. We were doing selection genetics, which has a whole logic to it. It was fun to do. So I learned genetics between course work and Cold Spring Harbor. They were so wrong. [laughter] But I didn't know that, you know, in 1972. It whetted my interest in what could be done with recombinant technologies.

It was, also, presented in—I don't know which courses—probably biochemistry courses at the graduate level. The potential, I watched unfold over the 1980s.

We did a sabbatical at Stanford [University, California] in 1983-1984. I set up cloning in that laboratory, so I learned the techniques. I did another short course at Rutgers [University, New Jersey]. I had taken various courses along the way to learn the techniques. It seemed like it had a huge amount of potential for solving the kinds of problems that we wanted to solve. Streptomycetes genetics was what I did at Rutgers. Streptomycetes are one level above E-coli. They're not eukaryotes. They're still prokaryotic organisms, but they're a little more complex and they produce antibiotics and other things.

I think when I came back from Stanford was when I set up the lab for molecular biology. Then, I had some post docs, who were really good, who already knew molecular biology. So we were able to ask questions that could be solved both with enzymology and with cloning and molecular biology. So we merged those and that was fun.

LR: Interesting.

MS: Yes. It was adapting to what was unfolding. It was what was happening in drug discovery as well solving the kinds of problems that we were looking at. Anyway, that was the early to late 1980s that the lab adapted.

LR: To pick up with your coming to Minnesota and being courted by Dean Weaver… I wonder if you had any other interactions with previous deans and what sort of advice you were given by Weaver or others about coming to the position.

MS: Well, my mentor on that was Jordan [L.] Cohen. I think he was at Iowa, at that point. He was at Kentucky, a dean, and, then, Iowa. An anecdote… [chuckles] I remember at dinner, I was sitting next to him. He said, "You really ought to look at deanships." I had several people who were pushing me to deanships. I said, "Oh, I'm just too young." I was forty-eight, forty-nine, at that point. He said, "Well, I became dean at forty-four…" forty-five, I don't know. I'm like, oops, extract foot from mouth. [laughter] Jordan was a really good mentor. He didn't tell me not to come here. He knew the situation. I don't know that he told me to…but he thought I should be a dean. There were others. John [A.] Biles at USC [University of Southern California]…

LR: Do you know how to spell Biles?

MS: B-i-l-e-s. He's long gone. He was an advocate for me.

I'd been on the Board of AACP [American Association of Colleges of Pharmacy] for, I don't know, multiple terms. I was chair of the Council of Faculties. I was chair of the Council of Sections. All those things gave you board seats. I think I did, maybe, three or four three-year terms on the AACP Board in various capacities. A lot of those people are

deans, so you have the role models. I didn't know any women deans, but I don't think that was the big focus.

I'm trying to think of who else specifically as deans that were role models. I was close with Dave Knapp, who was my dean at Maryland. He had mentored me through a career even though he was a pharmacy administration guy. I actually didn't like working for him as department head. He was a little micro managing. Friday afternoon, you'd finally be at your desk to get some work done and you'd get a phone call from Dave Knapp and end up with a weekend's worth of work to do, because he wanted to know something. [laughter] He had Friday afternoon to get *his* list ticked off. I'm still in touch with Dave. He was a good mentor, as well. He had moved into the Maryland deanship.

I don't know that I had anyone… Really, Jordan was the main one that was saying, "You really need to do this." I had had calls from other places. Every time somebody called, and said, "We really want you to come and interview for this," you'd go, "No, thank you." But it does stay behind with you.

LR: Can you describe what the College of Pharmacy was like when you arrived in the 1990s?

MS: I arrived January 1st [1996].

The budget was crazy, because Brody was pushing his model of reengineering. About five of us in the College were on various committees. We were supposed to spend twenty-five percent of our time doing reengineering. He was going to get rid of schools, get rid of deans, reorganize along mission lines. A lot of high pressure. Get on the train; it's going to leave without you. It was really ugly.

LR: Was there an existing model for that at other universities?

MS: No. No. He was using the corporate reengineering model.

People were afraid. There was a whole range of reactions to him from ignoring him to being afraid of him, to just being angry. That was a mess. Within the College, we had this SOS Committee. I don't think I felt personal antagonism at that point.

I hadn't proposed any specific changes. I was at least a basic scientist from a good school. You know, they didn't know how to deal with a woman. And I think it put an end to this four years of turmoil in the College, because, at least, there was someone there. I think I was well greeted by the pharmacy community.

[University of Minnesota President Nils] Hasselmo was not doing well. Our students were unhappy. Hasselmo had a welcoming at his house, a dinner for new deans. There were five new deans hired that year. He, as he always did, stood up and introduced everyone to the group. I stood up and he said, "Oh, yes, you're the one whose students were demonstrating in my office today."

The decision had been made before I came to raise the tuition a lot, twenty-five percent or something, and the students were up in arms. We took care of that. Immediately before I came, while Larry was here on his two-year stint, the Peters' [Mildred Peters and Bill Peters estate] money came in, $13 million, a huge endowment. Some of that money went to student scholarships. So we were able to solve some of the student issues by paying scholarships to make up for the difference in tuition and the students calmed down. But they were having a curriculum change. You know, that's rough times for students, as well.

The faculty had been… It was a period where there were empty positions. People who were retiring were not being replaced. And you had all this competition between basic science and clinical. It was pretty much a mess.

LR: Can you talk a little bit about how that tension between basic scientists and clinical manifested?

MS: Sure. Yes. The manifest was…actually, it's what [Yusuf] Abul-Hajj talks about in his interview. I characterized it as silos and throwing grenades over the silos. Promotion and tenure was all one college. The basic scientists felt that the clinicians were not prepared to their standards even though they had grants and they had papers, multi-author papers, and they were very suspicious of them. The clinicians were then fighting back by not promoting the basic scientists; although, I don't know that that ever happened. They'd have a meeting to promote someone for promotion. I remember one where I just don't think they were telling the truth. They were finding whatever reasons they could to smear the candidates. That creates fear and fear creates control. Really, it was probably a fight over resources, but resources include time and the curriculum, money, positions, whatever. I don't know that I ever saw the argument over the curriculum. It had been resolved in that few years before I came. Of course, going forward, there were.

LR: Do you remember what was at the crux of that curricular debate?

MS: Well, you're cutting basic science hours and labs and putting in a pharmaceutical care lab. You're putting in clinical courses…just time. It's time. But we added a year to the curriculum. The question is what happens with that year. You send them out into practice. You have your requirements for rotations and so on. But, then, if you're adding clinical courses, you're hiring clinical faculty with positions that the basic scientists wanted. That was sort of the basis of it. The manifestations were just a lot of ugliness, you know, of disrespect and not working together and fighting over every piece of resource.

LR: Do you think the students were aware of that tension?

MS: Yes, I think so [whispered]. It was also creating changes for students. They had their own beef. [laughter] I know some students who graduated in 1996. I don't remember them talking about the faculty fighting. But I would suspect that they were aware of it. I don't know. That's the good question.

LR: Was there, do you think, tension among students as they tried to sort of claim their own territory with the…

MS: Ummm… I'm sure that some of the students didn't want to go an extra year for the Pharm.D. It costs extra money. They were unhappy about the tuition and about the fact that we were charging tuition for the last year of rotations. "We're out there doing work and you're making us pay for it." Yes, I think there was some unhappiness among students. On the other hand, I think the Pharm.D. was inevitable by that point. I think there was probably a lot of excitement about being able to get the Pharm.D. and everybody doing that together.

I'm trying to think about putting my finger on those sorts of broader issues with the students and that's sort of hard. There was a lot of leadership in those classes. The 1997 class, in particular, were the ones who negotiated our fall break because the fall semester of the second year was just horrendous. So we met as students and faculty in groups to discuss the issues. They came up with a series of solutions including aligning exams and so on, shifted some courses, as well. I think that's all documented in Anderson [unpublished manuscript]. Also, then, we created this fall break. That was just like a pressure cooker where you let off steam. We still have it! Two days in October where you can vacation. You can work. You can be with your kids. You can get caught up on your school work. It was like magic. It relieved a whole lot of pressure. I think that and the other discussions about adjusting the curriculum, at that point… Then, also, there were things like establishing the Honor Council, honor code. So the students were quite active and I think that activism was aimed at positive things.

I never heard a lot of student unhappiness about the shift to the entry level. Now, that might have occurred before me. The curriculum was started. They had come to do that. The classes I had had applied to come based on an entry level Pharm.D. I don't remember a lot of unhappiness there.

There was unhappiness in the community because we were, at that point, not offering the non-traditional Pharm.D. That was very clear, that they wanted the opportunity to get the Pharm.D. You know that whole story where we went out and surveyed, actually hired someone to do a survey for us, and developed the parameters around the non-traditional and graduated 150 or so of them. That was really important for the community to accept what we were doing—*and* it created pharmacists who could be our preceptors and carry the practice out all around the state.

LR: I'm curious… Coming into all of that as dean, what did your day-to-day look like for those first couple of years, given all of that activity?

MS: [laughter] Ummm… [pause] Well, I came in January and they had not put together a budget for a February 6th, or something, presentation. So, there was just some total panic. I mean, I didn't understand the budget. They were waiting for the new dean. Well, they only had a month. There was a lot of chaos, in general. The [John S.] Najarian thing was unrolling. The AHC was falling apart. We were trying to implement a new curriculum.

Hasselmo was not doing well and he resigned then shortly after. I think it was pretty much chaos. I was trying to get committees set up and trying to get the constitution and bylaws rewritten so that we'd have a discussion over how we were going communicate, how we were going to be organized. There were all these organizational issues. Then, I was supposed to be spending three afternoons a week doing QRTC [Quality, Reengineering, and Technology Committee], which was interesting. I met a lot of people throughout the Academic Health Center. But it was pretty much chaos. But I think, mostly, day-to-day, I was just trying to get things organized. How do you get associate deans? How are we going to organize the College? And trying to listen. Other deans would say, "I spent my first six months just sitting and talking to people." No. There wasn't six months. There were things that had to happen. And we probably took some missteps. I'm trained as a chemist. I'm a problem solver, so my first reaction is always, okay, I can solve that. To slow down and have to listen, to learn to listen before you move was probably a hard lesson for me. But mostly, we were just trying to get things organized.

There were all kinds of bad personnel things going on, as well, that I still don't know the truth to. Faculty, mostly female faculty, were sort of being targeted to not get promoted, really ugly sorts of things that I will never know the truth to.

We were just dealing with whatever came along and, then, on April 1st, Brody resigned. We sat in his conference room and he demanded all of the deans' resignations and he left. We sort of looked at each other and said, "No, we're not going to do this." He said, "Anybody coming in new ought to have a clean slate. I want your resignations on my desk by the end of the week." [chuckles] I think we all individually and together decided we weren't going to do that.

Frank Cerra [senior vice president for health science] had sort of been ignoring Brody, I think. I've never asked Frank about that. He was not coming to all the deans' meetings. He wasn't *really* participating in QRTC. He was working with Fairview [Health Services]. That was the Fairview separation, as well—more chaos. He was appointed within a day or two to take over for Brody and he told us we didn't need to resign.

He set about organizing the Academic Health Center. I've got to say this group of six schools were lifesavers for each other. There were differences of opinion. Dentistry was *very* much angry and outside the group. But the others of us—we were three females—Vet Med [Veterinary Medicine] and Ron [Ronald Franks] from Duluth, a psychiatrist, dean at [University of Minnesota-] Duluth [UMD], were part of the group, as well. The group were lifesavers. Sandy [Sandra R.] Edwardson and Edith Leyasmayer and [Richard] Elzay was dean of Dentistry and he was more to the side, and there wasn't a separate dean in Medicine, Ron Franks was very rational and David [G.] Thawley maybe was dean of Vet… Anyway, it was like let's pick up the pieces and move forward and we created the Academic Health Center—or Frank created it. He was a *very* stabilizing influence. He believed in interprofessionality. He believed in working together. He let us each feel like we were being supported. He was transparent. He'd bring the budgets for each school. I loved working for Frank Cerra. So, that sort of reestablished order. He hired a lot of people, as well, within the Academic Health Center.

Then, [Mark G.] Yudof came in [as President of the University]. Yudof was wonderful. The example I use is that… Our windows around the fifth floor of Weaver-Densford [Hall] were caked in mud. President Hasselmo's administration said, "We're not going to wash windows ever again, so you can hire it done." I actually spent money to have the windows washed in Weaver-Densford when there wasn't much money. Yudof came in with the theme of beautifying the campus. He had windows cleaned, among other things. It was that. It was his outreach to the state.

Then, he did this budget shift, which he called Incentives for Managed Growth. If you were expanding programs, which we were, you got the money from the expansion. So, we had money. It was coming to us to implement a Pharm.D. curriculum. That's adding a third to our budget. We, all of a sudden, had money to do things with and it makes a difference. It makes a difference in how the College is going to cooperate. It makes a difference in terms of being able to create a vision both for education and for research. He was this calm, wise leader. He's the best president I have ever worked under. He wasn't here long enough. [chuckles] I was on the finance committee, that [Steven J.] Steve Rosenstone chaired, that was looking at budget models. Maybe it was called the Budget Model Committee. Yudof was a guiding force. It was clear that his hand was there. He didn't attend the meetings. He, then, implemented this Incentive for Managed Growth that was absolutely perfect for the College of Pharmacy, because of where we were.

And he cleaned up the campus and he made everybody optimistic and he launched eagles. He always dressed in monogram cuffs with cuff links. [laughter] He was a lawyer but he was a good one! I credit all of that happening around for helping calm down the College.

Really, what happened within the College was that we set about doing a constitution and bylaws redo and talking and talking and talking about how we wanted to be organized and how we wanted to communicate. To me, that was what eventually calmed everything down.

We were also hiring. We had positions. The same thing at Baltimore, same thing like positions to make people pull together… They may fight about them initially, but if you have enough to go around, they get focused in on who they're going to hire. I think that drives people to work together. It drives them to present a good front to the people that you're trying to hire. If you're presenting chaos to the people you're trying to hire, it looks like chaos. [chuckles]

LR: You're describing this early period as chaotic and it reminds me of Frederick [J.] Wulling who, for people listening, was the first dean of the College of Pharmacy. I'm reminded of the two times that he attempted to resign. I'm curious if you had any such inclination during that chaotic period.

MS: Nooo. [pause] No. I'm stubborn. I had a consultant, Jean Freeman that I hired to work with us, to work with the College. There was a point after a retreat where she came into my office and she said, "Have you *really* ever failed at anything? I think maybe this

is it. I have never seen, in all my years of consulting, a more difficult group to work with." I thought, no, I'm not going to quit. Besides, we had moved 2500 miles and had a family. There are a lot of things that keep you at it. But, part of it was just stubbornness. This is not going to defeat me. The other thing, though, she told me, the other piece of advice she gave me that was so important was that a lot of the faculty were behind me and I needed to quit trying to get everybody on board before I moved. Get something established. Then, work on the people who are still unhappy, but there weren't enough—they were very vocal—that were on *that* side that we shouldn't move forward.

LR: Do you remember the people who were, as you said, behind…what were their grievances?

MS: Ummm… [pause] Some of them were just difficult people. [laughter] I think, though, it's really over resources. They were afraid of change. They had been dominant. They had had their way several times. They had gone around deans to provosts and regents. They were responsible for some of the problem before I came. And they had power. So, they were facing losing that priority of power. If you go down to the root of it, there were lots of allocation of resource grievances. I think it was partly fear, partly fear of loss of power, loss of control, loss of value. They were the basic scientists for the most part.

There was one who, subsequently, left. He was a clinician scientist. I don't know what his motivation was, except I think he had a different world view. [pause] He was quite selfish. He went into a department head position at a school and, then, into a deanship. In every case, it was always about him. I don't know what his motivation was, but he was very articulate and very vocal. So, he would lead some against, anti sort of movements. He, eventually, went on, moved. He left. He left for an opportunity. Did he leave because he was not getting what he wanted here? I don't know. I don't have an answer for that.

There had been a lot of ugliness within the clinical side as well. Jim Cloyd had a vote of no confidence when he was chair of the Pharmacy Department. I still don't know what all of that was about. Maybe he, in his talk, will tell you. So, not all the ugliness was on the basic science side. There was ugliness on the clinical side, as well, and, then, there were the battles between.

I think by bringing the focus around to how we *did* want to relate to each other, how do we want to communicate… Is it through departments? Is it through faculty assemblies every month? How are we going to move forward? We had endless discussions about that.

Eventually, we defined department… Well, this whole division/department thing has a long history and is crazy. Our divisions acted like departments, but we just didn't call them departments or vice versa. Our departments actually act like divisions because the budgets are centralized. Nevertheless, it was a huge semantic issue. We let people choose their departments—who do you want to work with?—once we decided what they were. Then, we put the promotion and tenure in the departments. That calmed everything down, because they had some self control, control with colleagues they were comfortable with. I don't know whether they thought they, then, would have the basis for battling it out, but

that wasn't what happened. What happened is they became more internally focused, and they had positions to fill, and things to do, and it smoothed out.

LR: I was reading about that in some of the other oral history interviews as part of the College of Pharmacy History Project. It did strike me…the conversation about de-departmentalization and, then, re-departmentalization.

MS: That's the straw horse. I remember one of the med chemists telling me that we would lose our status if we didn't have departments, that Michigan had the best Med Chem [Medicinal Chemistry] Department. It turns out Michigan is in divisions. It wasn't really department versus divisions.

LR: What is the difference between those two?

MS: Well, I think it's a matter of self control. If you spread your budget out to departments, then they have control over what's happening. Ours, when they had departments, never had full budgetary control. They had budgets, but they don't have their personnel budgets. So, still, to this day, all the personnel lines are in the dean's office and they can shift between departments. So, whether you call it a department or a division is semantics. We have centralized HR. We have centralized finance. We have centralized personnel budgets. The departments, there's lots for them to do.

But if you look at our job description for a department head, it's primarily communication and mentoring. They're responsible for mentoring or making sure every faculty member is mentored. They're responsible for course assignments—but they were anyway. Those things were the same. They're *very* important. It's a very difficult position. But it wasn't different between a division head and a department head.

A college this size, even the size we are now, needs to have centralized administration… That's what happened under, I guess, [Eric W.] Kaler when he was trying to cut all the money out of the budgets. He was taking schools that were departmentalized with departmental budgets and resources and trying to put them centralized within the College. It does save money. You spend much less, especially in colleges this size, on those functions if they're centralized and it leaves decision making with the dean or the dean in cooperation with what we called the Central Council, the executive group.

That's a straw horse but it was very important to some people. And, maybe, I didn't quite understand. Since, in reality, there wasn't a lot of difference between divisions and departments, I'm not sure I understood the history. That's why we want a *history* for the next dean.

LR: [chuckles]

MS: I didn't understand the history of the sensitivity over those terms, so I probably contributed to that. There was a committee on organization. Out of the SOS, we had

formed three committees and one of them was organization and administration. Well, they were trying to adapt to Brody and it contributed to the chaos.

LR: I wonder… During those early years in your deanship, was there someone or a group of people that you were able to turn to and lean on to navigate that chaos?

MS: Yes. Nina Graves was associate dean. She left after this, went to Medtronic. I think Nina was fabulous. Wendy St. Peter became the associate dean for Education. It completely burned her out. She has never wanted to be an administrator since. She's still on the faculty. She was young. She was a clinician. She's a good thinker. So, we did have this group of associate deans. Actually, Rod Johnson, even though he *really* disliked me, turned out to be a major force in moving—he's in Med Chem—us to rationality. Henry Mann, who is dean at Ohio State now…I don't know what his role was titled. Steve [Stephen] Schondelmeyer… So, we were a group of faculty and associate deans who were guiding this. I wasn't alone, you know. Yes, they were feeling their way, too—we were all feeling our way—but, I think they were good leaders. Cloyd was in a difficult position because of this no confidence vote. I think he had to sort of regain his confidence as a leader. He's *very* articulate and a *very* good leader. I think it was leaders among the faculty and, then, it was the other deans in the AHC. I remember retreats and conversations with them—and Frank.

LR: Frank Cerra?

MS: Yes. Yes. Yes. God bless him. [chuckles]

LR: I wonder, also, during this period, do you remember, aside from all of the administrative things happening within the College, any of the core themes or questions that pharmacy research was interested in, at this time?

MS: In 2002, we had about $2 million in research money. Epilepsy [Research and Education]… Cloyd was a huge piece of it. There was an NIH program project. There was HIV [Human Immunodeficiency Virus] with Courtney [V.] Fletcher, who was one who left, and [Philip S.] Portoghese had the big grants on opioids. They were the big money makers, at that point. I remember when Courtney left, he took half a million with him. It just sort of hit me looking at the numbers that I couldn't concentrate all the research in three people. There were other people with grants; don't get me wrong, but they were the big money bringers. I think it sort of distorted how much research we really had when you think the grants are $100,000 and here's a half a million here, there, and elsewhere on three people.

That was when [Elias A.] Zerhouni was head of NIH [National Institutes of Health] and translational research was coming on strong. We followed that.

That was responsible for creating this Experimental Clinical Pharmacology Department with the research on, really, kinetics, pharmacokinetics, pharmacometrics, and clinical applications, bringing together Ph.D.s and Pharm.D.s. That was huge. It was innovative

and we had to fight Pharmacology for it to create a clinical pharmacology. They didn't want to do clinical pharmacology and we did. So, we negotiated with them that we would keep the clinical pharmacology and they would take the molecular. Of course, it never works out that way, because clinical pharmacology has a molecular basis and vice versa. [chuckles] But, basically, that was the agreement, that we would be able to have a department named Clinical Pharmacology out of the Med School and they would be Pharmacology.

We had a strong pharmaceutics group. The physical pharmacy with [Raj Suryanarayanan] Sury and David [J. W.] Grant was *very* strong. David died in, maybe, 1999 or so. [correctly December 9, 2005 at age 68] He had an aneurysm. He was world renowned, endowed chair. Then, Sury took over his chair. That group was very strong. The kinetics in Pharmaceutics was still going strong, [Ronald J.] Sawchuk and [Cheryl] Zimmerman. Sawchuk, I think, had some NIH grants, but he was also working on some product development. In Med Chem, really Portoghese was dominant.

Then, we were able to create a group on cancer prevention, chemo prevention. Natalia [Tretyakova] and [Patrick] Pat Hanna were sort of in that area. That was a good strong group. Then, there were some other med chemists, but not a theme, I think, like the opioids. Then, pharmacy administration, the pharmaceutical care and health systems with the economics. And the practice front…that was the time when Strand and Cipolle were doing the project, proving that pharmaceutical care could work and so on. That was a huge theme that brought in private money.

I think the thing that's made us strong research-wise is the breadth of research that we embraced, not always areas that NIH was supporting, but a breadth that was important to the current trends in what was happening. That added to the Epilepsy [Research and Education] and the other areas that we had. But we did lose HIV, until recently, with Melanie Nicol, who is doing HIV. There was that period under [Gilbert S.] Banker where the clinicians were doing a lot of science with fellows in collaboration with the Med School. Actually, Dr. [Daniel M.] Canafax was still here working on transplantation. I'm trying to think of who else. There was still Epilepsy, lots of Epilepsy, but there were clinical areas that were strong, as well. So, I think it was that breadth that got us through that.

I remember in 2000-2002, it was like, oops, we've invested in getting the curriculum implemented, but, now, we've got to put money into research. We had gaps that really needed some emphasis. I think the next set of proposals for faculty were sort of gap fillers, always with an eye on what was currently being funded by NIH or elsewhere. I think part of our strength is that we always kept an eye on what was emerging. Actually, Jim [Cloyd] led the Pharmacogenomics early on when that was becoming a big deal. Jim was the one who said, "We have to bring in people to teach us about pharmacogenomics and all these clinicians need to have a pharmacogenomic piece to their research." So, we did that. We moved in that direction and that was really important.

LR: Interesting.

I wonder if we could jump a little bit and talk about the founding of the Rural Health School and the impetus behind it.

MS: Sure. Well, that had started, I think, before I came. There was a strategic plan that, I think, they just did for a new dean coming in. The emphasis—I don't know if it was the Rural Health School quite at that point—on rural practice was one of the top priorities. The faculty had voted for that. That was Tom [A.] Larson and [Donald] Don Uden. They joined up with the Rural Health School that was created out of the Academic Health Center. I think that was a Frank [Cerra] thing, but I'm not real sure. In fact, that's something I want to write about, so I need to find out about where the origin… When you talk to Don Uden, ask him about that origin. It was a priority for us, an embraced priority. The Rural Health School went into communities and established practices. So we could send students there. They did research on the rural demographics of pharmacists and so on and created models of practice that were interprofessional. It was one of the first true interprofessional efforts in practice that we had. It lasted a long time. At some point, Frank pulled the plug on it. I've never quite understood why he did that, except he felt that they were giving too much of the money behind it to the communities and sort of bought themselves into these communities. I don't know the truth to that. I will listen to Don with great interest about that. He had been head of it for a year or so before that happened. What I don't know is how much the Duluth school… Medicine always had their Rural Physician [Associate] Program. So, I don't know whether that was a Medicine thing that said, look, you don't need the Rural Health School on top of our rural physicians. I don't know whether it was Duluth who didn't want to participate. I just don't know the truth behind all of that. But, they did *really* nice work for a while looking at rural community needs, for numbers of years, ten years maybe.

LR: Is it correct that the idea was to bring students from the Twin Cities campus to these other locations and have them experience different training?

MS: Yes.

Frank was *really* committed to serving the whole state. That's why he was so supportive of our Duluth expansion. I think one of his themes was serving the state. It worked very well for him in the legislature. He was *very* well liked in the legislature and consistently got money for the AHC, which may have antagonized people on the other side of campus. He was a *very* good spokesman for a mission that was interprofessional and embraced both underserved, urban, and rural.

LR: Do you remember at all how that program was received by faculty and the students?

MS: Rural health?

LR: Yes.

MS: Oh, I think it was well received. Yes. Absolutely. Absolutely.

It was substantially later after the Duluth expansion… The Duluth expansion and the Rural Health School worked out of the same motivation. They weren't really related, except that we were committed to doing rotations in rural communities. What this did was create those rural communities with good practices where we could do that. Eventually, now, we require every student to do a rural rotation because they have to be exposed. Some of them will like it; some of them won't. But, if they don't ever get the chance to see what the advantages of a rural practice… The other thing about the Rural Health School was that it was very broad. They looked at the cultural aspects of rural communities and the social work aspects, so it wasn't just health. It was health in the broader sense. I think that was *really* important. That sort of health is not just clinical care. If you look at what the epidemiologists show you, a very small slice of overall wellbeing is the clinical care. Then, you look at the economic and the social and the environment, all of those things are a bigger impact on overall health. They embraced that attitude. That was important and the embracing of that more holistic look at health was really important.

LR: In terms of the Rural Health School helping to establish clinics in rural areas…

MS: Ummm, I don't think they established clinics.

LR: Okay.

MS: I think they sent students, yes. They took faculty out there as preceptors, but I think they worked with the communities. The attitude was that we will work with these communities who welcome us.

LR: Can you expand a little bit more on the Duluth expansion, the vision behind it?

MS: Sure.

It grew out of several things. We were getting requests for pharmacists in rural communities. Our students were all hired in November. They were doing rotations and all the rotations were in the Twin Cities, for the most part. There were a few out of state. People were being picked up because there was a shortage of pharmacists. They were getting hiring bonuses and everything else. With the shortage of pharmacists, the rural communities were suffering more. They couldn't ever get vacations. They couldn't get relief. They couldn't get anyone to buy their stores. The whole shortage situation had a greater impact in rural and we were hearing about that through newspaper articles, through calls to the school, through just sort of generally knowing about the shortage of pharmacists, and there's a demand index that was done—it's still done—about the demand for hires. Then, also the [Minnesota] Department of Health did a survey of shortages. That was all happening in the 2000-2002 area. Henry [Mann] did a survey. I don't know quite how he did that. Our numbers pretty much corresponded with the Department of Health. There were about equal openings rural and urban, but the impact on the rural was worse. Cities would compensate. They would hire retired people in their eighties part time. There were just more ways of sort of compensating for the shortage. But, the rural were hit really

hard. So, we decided that we needed to be producing more pharmacists and we put forth two proposals.

We talked to [University of Minnesota-] Rochester and they were not interested in another doctoral program. They're very medical centric, for one thing. They support their med students. I think they didn't want to support another doctoral… I mean, how do you have a doctoral program where they're paying tuition? It was one conversation. It wasn't let's go down this path and, then, we didn't do Rochester. It was pretty clear that they weren't interested in pursuing it.

We talked to Duluth, Essentia [Health]. They were merging, at that point, with… [Fargo-based Innovis Health] They were *very* enthusiastic about having us come. They were not able to hire pharmacists in Duluth. They had many openings. They were frustrated. So, they were very supportive. The Chamber of Commerce was supportive and UMD was, for the most part, supportive.

[Chancellor] Kathryn [A.] Martin and Frank were sort of antagonists. What I've never quite figured out is whether she didn't want us to come or she didn't… People under her, vice presidents worked with us beautifully. They were just wonderful. I don't know that they would have done that without her approval, but, on the surface, she was not real happy about us coming. There was an announcement that we were ribbon cutting to start this. Frank had assembled all of her state representatives and all of her community leaders and so on in a room with the press to announce that pharmacy was going to Duluth. It had been negotiated by that point…who would pay for what, where we would go, and so on. She came storming into the room. He got up and *praised* her for her foresight in ensuring that the Duluth community would have pharmacists into the future. She just melted. You know, she became a supporter, at that point. She wasn't always agreeable on everything, but very much a supporter. He just trapped her. [laughter] I'll never know the truth about Kathryn Martin. She's quite a person, a forceful person, and very successful for UMD. I don't know the full truth behind that negotiation. She must have approved it.

[Vincent R.] Vince Magnuson and some others up there were just so cooperative in terms of getting the program up there and getting a space. That's who I was working with and, then, [James P.] Jim Riehl, who was dean of the College of Science and Engineering. Once we started talking to UMD with Essentia's support, it just really all came together very quickly.

We had put in two proposals to the University; one for expanding here and one for expanding in Duluth with all the money that went with it. We didn't have the space here. We didn't have the rotations, the places to put students. We had had the Rural Health School that had, perhaps, attracted students to the Twin Cities, but, once they got here, they were hired within the Twin Cities. We were sending twelve out of a hundred graduates back a year, average, twelve percent, which wasn't going to do it. *And* you had the successful Medical School up there. So, there were a lot of things driving us to Duluth. It got approved by the University.

The [Master Settlement Agreement, 1998] tobacco money is what paid for it. The tobacco settlement happened about the same time. Frank expanded Nursing to Rochester and Pharmacy to Duluth with that money, to bridge us until tuition would pay for it. In the long run, it was paid for with the Incentives for Managed Growth. You expand your students, you have money. So, there was investment in space and investment in getting it started, which was very controlled.

Basically, we got going in 2003. There was a year delay. [pause] I think it was a hold up in getting the tobacco money. I had [Stephen G.] Steve Hoag as dean. [Rodney] Rod Carter, who was on this campus, was doing all the detailed planning, curriculum, everything about it, a broad plan. So, by the time we opened in 2003, we thought we had planned it to death. There are always surprises. I was on the phone with Steve every single day. But, it worked. He was an experienced dean. He had been at North Dakota [State] and Drake [University], and very calm, very calm. We hired, like, seven or eight faculty that first year. We were ready to go.

The surprises for students… The students down here said, "Oh, we don't want any of the organizations to go up there the first year, because they won't have enough leaders to go around." Duluth students pushed to have fraternities started, and they started the Duluth Pharm.D. Club, which still exists. They just self organized. They were great leaders. They rose to the occasion, you know. It worked.

Steve developed dementia, but we kept him on till 2007, till that first class graduated, which was compassionate [whispered]. We hired [Randall D.] Randy Seifert in there as department head. Then, he managed both positions for a while, which was not the best idea. The senior associate dean is a very external job and the department head is a very internal job. It just doesn't get done by one person.

We made some missteps, but, over all, the morale was *very* high up there. The students loved it; they still do. They may not have wanted to go there to begin with, but once they're there, it's a smaller class, they're close with the faculty, the buildings are all one classrooms and faculty; whereas, here, we're all over the place.

LR: Did many students transfer from the Twin Cities?

MS: No. It's started with a class one. We enter all one class and they get to choose. We had five choices: Twin Cities only, Duluth only, preference each way, or no preference. A lot of students would pick no preference, because they thought it gave them a better chance of getting in. A lot of those ended up in Duluth to begin with, but they converted. The morale… It was fun to go up. The students were happy to be there and happy with their environment compared to what they saw on the Twin Cities campus. There are always issues. We do have an inter-campus transfer policy for people who have to transfer for family or health or a variety of reasons, but we don't use it very often.

Then, in 2007, we did the numbers—well, we were doing the numbers—with accreditation in order to accredit that campus. We had report after report after report after report. So,

we knew that they were performing, as well. Performance was equivalent. In 2007, we looked at the numbers of students who had come from rural and who had gone back out to rural. We had tripled the number taking positions in rural Minnesota and we had expanded class by fifty percent. The number of pharmacists were more on target. So, we claimed success.

LR: From your perspective, did you see any major differences between the two campuses?

MS: Ummm… It's just a hunch but the first class or two out of Duluth has a high proportion of people in leadership positions. I think it was that, having to solve… They rose to the occasion. They wanted to do it. There are some *terrific* people in those classes, but, then, there are terrific students in all of them. The students carried it. "Don't forget Duluth." If you look at the College Board presidents, College Board is all one, they tended to alternate Duluth and the Twin Cities. They were always stepping up to be active across campuses and to pull campuses together. I give the students a huge amount of credit for making that work. Yes. And the faculty who created that among the students, as well.

We worked really hard to make it successful, equivalent. It's not always equal. The faculty probably have larger teaching loads there. The students don't have the same access to internships. There some differences. That and the first year, we had not invested enough in the technology, so the sound and sight were not… The first summer, we spent another $80,000 or $100,000 or something putting in lots of TVs and improving the sound system and so on.

I think the biggest shock for the students here, who thought their life wasn't going to change—they thought this was all about the Duluth students—found out that learning in an electronic classroom is different. It's different and it did affect them. Not all of them wanted more students, a Duluth branch. There was some rumbling in classes here.

LR: Can you talk a little bit more about how the electronic classroom connects to the Duluth expansion?

MS: We decided to go with a simultaneous delivery, which means that you're using ITV in your classroom to go from either end. Our theme was that there would be a faculty member on both ends in every class. I don't know that we do that entirely now. But, at the beginning, it worked well because people would know what the other one was saying and so on. There's always a faculty member responsible on both ends and TAs [teaching assistants] on both ends, so they are supported equally. It's just ITV. Now, with the new curriculum—when was that, 2013?—we did [Room] 7-135 classroom [in Weaver-Densford Hall] and, then, one in Duluth. Again, Duluth gave us a classroom in the library where we could make these pods. We had support for the money. The provost gave us the money—it was $2.5 million, something like that—to create a classroom with these pods with nine people around them, two televisions, mikes in the middle. That was a response to active learning, which was becoming the theme for pharmacy education, at that point. It *greatly* improved the communication between the classrooms. You can have groups on both ends actually talking table to table if you want to do it that way. You can have them

work in a pod, in a group, and display the results on both ends. I know that the faculty, that, all of a sudden, have tables surrounding them, that was a big adaptation if you're used to standing at a podium and lecturing. You're not doing it anymore. That was more the style of education. [Ronald S.] Ron Hadsall says it really well, that for new curriculum, one of the goals was to really create a curriculum for active learning across two campuses, and we succeeded at that. That's what it is today.

We tried to give people as much freedom as they could in how they present. They don't have to do active learning. But, the students demand active learning. They don't want to just sit in a lecture. Even if it's not administrators telling them they have to do active learning, the students demanding it, you know, is more of a force than any administrator.

LR: Interesting.

MS: Yes.

LR: I'm going to pause the tape for just a second, so we can talk about the time.

[break in the interview]

LR: Let's pick up, again, with the new curriculum. You had mentioned this emphasis on active learning across two campuses. Can you talk a little bit more about the vision behind the new curriculum?

MS: Yes. I think Ron Hadsall deserves credit… He was, by then, associate dean for education. He stated in on this process. Now, there were national CAPE [Center for the Advancement of Pharmacy Education] committees. They're the ones who were guiding the direction of pharmacy education with national committees. Some of the things that had come out were more active learning, were putting clinical education earlier in the curriculum. We had really done that.

One of the innovations that I think needs to be noted for this school is the Pharmaceutical Care Laboratory. We were one of the first schools to do that, to replace the basic science labs with a practice lab. That and, then, the courses that Linda [Strand] and Bob [Cipolle] were kicking off on pharmaceutical care were early in the curriculum. So, we were sort of ahead of the curve on that.

The force for interpersonal education was strong here and nationally, there was new science, all of the biotechnology and protein drugs, all kinds of new science that needed to be talked about, and new advances in diseases, and, then, the delivery style, I think were the major driving forces in CAPE. There were also things like a more holistic view of patients and patient centeredness, all of that, that were really pushing a major curricular change.

We had, in that 1995 curriculum, the Pharmaceutical Care Lab, practice lab. Actually, it allowed a lot of flexibility in the curriculum, because little things, especially practice

things, could be put in the lab curriculum without creating a whole new course. I think ours lasted a long time. Ten years on a curriculum is a long time and 2005 was ten years. But there was a sense of lack of coordination, that things were just being stuck in, that there were changes being made that weren't necessarily coordinated. Students were asking for a curriculum change. Faculty were asking for a curriculum change.

Oh, also, more integration between basic science and clinical…and then, nationally, there was this emphasis on the CAPE competencies, they were calling them.

Ron started in with a curriculum. It wasn't a revision group yet. I forget what he called it, but it was a curriculum group to look at the curriculum. He talked to all the schools in the AHC. They read all the documents. They did a couple of years of background on where did we want to go. So, that gets us up probably to 2007, 2008 without a curriculum yet.

In 2008, maybe 2009, [correctly July 2008], I hired Charles Taylor. He was at St. Louis [College of Pharmacy], at the time. Charles was really a go getter and had *great* ideas on curriculum. So, he sort of took this over from Ron. That resulted in some documents, but he did the philosophy of the curriculum and the general outline of the curriculum. What Charles did is put his own ideas on paper a lot and there were people who pushed back. He did get a lot of pushback from this faculty. He was young. He's smart. He's now provost at North Texas [Health Science Center]. I loved him. But, there was this pushback.

So, what we created was a Curriculum Revision Committee and we used two faculty, Don Uden and Grant Anderson, one from each campus. It was a voluntary committee. They weren't strictly representative, but it did have representatives from all areas. And it had Ann Lowry, who still works for the College, as a consultant. She was helping guide the leaders. Their job was to come up with modules and, then, the curriculum for a faculty vote that had met all these requirements that Ron's group had outlined and Charles had outlined. Charles carried many retreats. We approved the modules, the areas, and, then, put that together into a curriculum. There were some really creative principles behind it, like a course doesn't have to go from January to June or May. It can be as many weeks as it needs and as many credits as it needs. So, we used partial credits. A course many be 3.2 credits.

LR: Interesting.

MS: Yes. And we had work groups on every course that were two campuses, multiple people working together to design courses. Those all put together in… We actually started in 2013. A year before, it was clear we weren't going to make it in time for a 2012 start. The goal was the 2012 start. Charles left somewhere in there to become dean at NEOCOM [Northeast Ohio College of Pharmacy] in Ohio. We took another year to firm things up and started in 2013. There is a lot once you even have a curriculum. It has to be communicated to your students who are applying and all of this. Anyway, I think the extra year was probably good for us. So, we started in 2013. And we got the classrooms built, at the same time. There was an enormous amount of work that went into it. Not only was content shifting, but the style of delivery was shifting. There were some faculty who were

introducing active learning in the old curriculum that they, then, transferred to the new. It wasn't here's one and the next day, here's the other curriculum. It was phased in over four years. There were changes going on in the latter few years of the old curriculum that were, then, applied learnings to the new curriculum.

We made leadership a required component. It's one of our unique areas that we specialize in. The students wanted more emphasis on career development and that's been put in. There's more emphasis on sort of the professionalization aspects. All the disease modules were updated. Our experiential group was sort of detached from the clinical department. The curriculum was designed but there wasn't daily input into those. There was a preceptor group that met, but we needed some work on the experiential. So, we formed a group of course directors out of the clinical faculty to take charge, not of the operations of the experiential but of the design and the implementation. That was an important feature of the new curriculum.

LR: What is the difference between experiential and clinical?

MS: It's the same.

LR: Oh, okay.

MS: It's the clinical experiences.

LR: I'm curious… What was the response from the faculty on all these changes being made?

MS: Well, they were doing it. I think they did well. There were some who resisted, you know—I'm not going to do active learning—but not very many. I'm sure there were some who just thought they'd wait it out and it would go back to the old way and I'm sure there's been some slips back to just lecturing. But, for the most part, no. I think the faculty worked well. They had already broken the barrier of having to work with someone else across the two campuses…and a lot of collaboration in teaching. There were problems with some people who said, "I want it this way, and I want to do it my way, and it's my course." But, we'd already broken that ownership theme. They didn't own their course anymore by the time we did that. That makes it easier to move into other collaborative teaching. It was gradual over multiple years. I think the big difference now is that almost no one is sole course director of anything and they don't teach a whole course. They teach a section. They collaborate with whoever else is in that course. It's a different curriculum.

LR: And that's standard across the entire curriculum?

MS: Yes, pretty much.

LR: Interesting.

MS: I can't assess how much it's slipped. I'm sure there's some. But, that's how it was designed. That was one of the principles. I think stating the philosophy of practice… You have a lot of non pharmacists who are teaching. I think we have pulled them in to understanding what they're teaching toward, for the most part, what the pharmacists are supposed to look like.

LR: Can you talk a little bit about what students were taught about leadership? That seems like a continued theme, especially throughout your deanship.

MS: Yes. I think it's leadership for change, but they start out with self knowledge. What's my leadership style, what do I know about myself and so on, and moves into styles of leadership and, then, leadership for change. If they go on from those basic concepts, there is an eighteen credit leadership emphasis area. Then, they're working with community leaders on projects. A lot of it is project based. And they do a series of rotations that are with leaders, so they get a designation on their transcript of a leadership emphasis area and we recognize them at graduation and so. Now everyone is getting those core pieces… Self knowledge, leadership style, and what happens in change.

LR: Do you think that emphasis is something specific to Minnesota or is that part of a broader trend within the field?

MS: Well, now, it's in the CAPE requirements. One of the Argus Commission's [goals] was on leadership curriculum. It was us and Washington State who actually had a leadership curriculum. We couldn't find any others in the U.S. Ours, at that point, was elective but, now, it's part of the requirement.

LR: Is there anything else about the curriculum or the Duluth expansion that you would like to share before we conclude?

MS: I think the dual degrees are also really important. Presenting options to students to distinguish themselves, I think is *very* attractive to students. Those actually started with the old curriculum, I think. We have the M.B.A., both here and in Duluth. The Duluth M.B.A., they can do with summers and weekends and complete in the four years. The M.B.A. here, they have to take a dropout year. We don't have lots of students who do M.B.A.s, but those that do are snapped up fast. A good number do M.P.H.s [Master of Public Health], especially if they have a background in something that's more public health oriented. We're still talking about a handful a year. That's also a dropout year. They're basically doing a two-year program in a year… Well, they dropout…do the first year intensely in whatever, the M.B.A. or the M.P.H., and, then, the second year, the M.P.H., and the last year of the pharmacy are sort of combined with electives.

We have more electives than most schools and that gives us a lot more flexibility for doing that. We're just starting an informatics track and, then, there are research tracks, as well, that the students can do. It allows differentiation of the students. I think it's a feature that really attracts students. It's that and, then, the interprofessionality of having all the schools in the Academic Health Center that attracts a lot of students. The leadership emphasis

attracts a lot of students. Although, the funny thing was when we first starting teaching that leadership elective… We select students on part of the interview. Where have you been a leader? What are your leadership characteristics and so on? We'd get them in class and none of them thought they were leaders. They thought leaders were [Mahatma] Gandhi and positional leaders. Actually, when we're talking about leadership, that's one of the key first lessons is the difference between positional and non positional leadership.

LR: Training to see themselves as leaders?

MS: Yes. Yes, and that you don't have to be a positional leader to be a leader. It shocked me. Are you a leader? No. A few would say yes, but most would say no. We're trying to go up hill on that.

LR: Sure.

I'm curious about the dual degree programs. From your perspective, do you think, when students leave the University, are these dual degrees valued in the way that you hope that they are?

MS: Yes. Yes, especially the managed care hires, our M.B.A. ones. Those are direct to a job. A lot of people going into clinical roles are probably going to do residencies, anyway, after that. How much does the M.P.H.…? We see people with the M.P.H.s doing leadership roles here, there, and elsewhere, and doing unusual kinds of jobs. Is that because they were creative individuals? It's hard to separate the individual from the training. A lot of them do do residencies after. It's hard to sort it all out…the M.B.A., for sure. It slots them into jobs.

LR: Anything else about curriculum?

MS: Ummm… The experiential is important in that that's their last year. We do require that they do a rural rotation.

[pause] Actually, an important milestone was when we had enough medication management practices that every student has at least one real MTM [medication therapy management] experience.

The thing about using the community to teach your students is that if you're teaching to an advanced practice, you have to have enough advanced practices out there to incorporate all those students so they actually see it in practice. Part of the trouble with interprofessional education is that the health systems want us to teach interprofessional practice so they can use graduates in interprofessional practices, but they aren't giving us the role models we need. We do require one interprofessional rotation. It's tied into other things.

LR: What constitutes an interprofessional rotation?

MS: Well, it has to be learning with and from multiple professions. So it isn't parallel rounds in a hospital. That doesn't count. They have to be interacting, relying on each other in decision making. The practice is there but… There's enough that we're getting people assigned. How *real* those are, I don't know, because the health systems are still asking for help with becoming more interprofessional. It's part of the changes in health care. It will happen and it helps that we have competencies that they have to fulfill.

LR: That seems like a fine place to stop for now. We will pick up with part two on September 9.

MS: Okay. Sounds good. I'm sorry I rattled on.

LR: No, this has been great.

[End of the interview]

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Interview with Doctor Marilyn K. Speedie
Part Two

Interviewed by Lauren N. Ruhrold

Interviewed for the College of Pharmacy Oral History Project
University of Minnesota

Interviewed in 717 Delaware
on the University of Minnesota Campus

Interviewed on September 9, 2019

Marilyn K. Speedie: MS
Lauren N. Ruhrold: LR

LR: This is Lauren Ruhrold. I'm here with Doctor Marilyn K. Speedie. It is September 9, 2019 and we're here in Doctor Speedie's office in Room 484, in 717 Delaware.

Thank you for meeting with me again.

We ended part one of our interview talking about the College of Pharmacy curriculum change and you mentioned to me in the hallway wanting to add some information about Caroline Gaither and the curriculum development and Gunda [I.] Georg and the Institute of Drug Discovery. If you wanted to say anything about them, their contributions, please, go ahead.

MS: That period, 2005-2013, I guess is when we actually kicked off the curriculum—was sort of a long process. [Ronald] Ron Hadsall had chaired committees that were looking fairly broadly at curriculum. The idea was to go from ground up in designing the curriculum and using accreditation standards and so, and, then, looking at the Med School and other professions, as well. They had reports and they had philosophies, but they didn't really have a curriculum. When Charles Taylor came, he *really* took the curriculum change in hand. He was very visionary. He's gone on to be a provost in [North] Texas [Health Science Center]. He was very good, but he was a little too directive for the faculty, so he got some pushback from the faculty. On the other hand, he did make the curriculum happen, the design happen. He pushed us through stating the philosophy, defining the modules, defining the content. When he was getting pushback from the faculty, we decided to use a faculty-directed committee, voluntary, to do the actual design. He steered it, but it was Grant Anderson and [Donald] Don Uden who actually led weekly meetings of this curriculum design committee—I'm not absolutely sure that's what it was called—that did the really hard work of getting the design into courses.

There were several innovative components of that. One was that we didn't put the courses in two- and three-hour blocks. You got as many hours to teach something as you needed to teach it, so you had to make an estimate. If you look at our curriculum now, there are courses that are 1.8 credits and 2.5 and so on…that have as many hours as they need to teach it. Nobody just fills with fluff at all. That freed up elective time. I think we started out with about thirteen hours of elective. They may have adjusted a little bit now. There was lots of time to do other things, including the dual degrees, which we were talking about. Anyway, Charles was moving that along.

In the meantime, we had hired Caroline [A.] Gaither, brought her from Michigan. She thought she was coming to be associate dean for Student Affairs and was very interested in students and diversity and bringing in students who would succeed, admissions, and so on.

Well, Charles fairly suddenly announced he was leaving, going to be dean at NEOCOM [Northeast Ohio College of Pharmacy], a pharmacy school. I think that was very consistent with his ambition, his desire to see the big picture, and with some of the pushback he was getting from the College. I will have to say, he never let the pushback deter the forward progress. He was really good.

But, then, I had Caroline. I sat with Caroline and I said, "Look, you are the logical person to take over this top job. [Charles] He was senior associate dean and she was an associate dean under him or parallel, I guess. She wasn't sure she wanted it. We waited about six months while she *did* the job to see if she really wanted to do it. She decided, eventually, that she did. She took over, again, at a time not really crisis, but a time of great change. Her style was completely different than Charles'. Caroline is a leader by talking to people, really behind the scenes. I had to push her some to even stand up in front of the faculty. At faculty meetings, she would let other people do it. She negotiated all kinds of problems and situations that needed resolution. It sometimes took her longer to lead because of that style. We, then, filled in her assistant dean with Jeannine [M.] Conway who was internal, but is a get-it-done kind of person. Actually, the pair of them, I thought, were extremely effective.

We did delay the implementation of the curriculum by a year, because we weren't ready. I think it was a wise decision. You need to be really prepared. You have to be prepared *early*. You have to let the applicants know a year ahead that you're doing a curriculum change. I think all of that unfolded very reasonably. The whole process was a *very* long process to do a curriculum change. I think in doing so, we had everything incorporated that the country was pushing toward in terms of interprofessional education, active learning.

We also had classrooms built in that process, classrooms built for both Duluth and Twin Cities. The provost supported that. That was a couple millions dollars to do that renovation. It was a major renovation, because we got rid of our major classroom in the meantime while it was being constructed. It's the one with tables with pods of nine and all this technology…technology equipped, so that we could do the teaching across campuses,

simultaneous ITV teaching. It's interesting because the podium is in the middle of the classrooms, so you have students surrounding you, which was quite unusual for older, more senior faculty. But, people adjusted reasonably well. The students had screens. You had to get used to students not necessarily looking at *you*, but at the screens. Slides were on the screens at the ends of the tables. They also saw the other classroom. The faculty member could see both classrooms, could answer questions, and did much less lecturing.

It really promoted the active learning approach to education. I will write that up as one of our innovations. I think circumstances really pushed the innovation. Really, an important part of the new curriculum was this new way of teaching, as well. I think it helped that we had added a lot of faculty. We had a lot of younger faculty who were really embracing the active learning and the students embraced it. When we allowed faculty who were set on just lecturing to lecture, the students didn't accept it. The students pushed them to introduce active learning into their courses. So, there was a rather dramatic change in delivery, as well as curriculum, at that time.

I give Caroline a *huge* amount of credit for her sort of behind the scenes leadership that was persuasive. She could talk to people, you know, and listen. I think that was probably what was really needed, at that time, but the contrast with Charles was fairly dramatic. I think without the combination of them, we wouldn't have had the same outcome.

LR: And Gunda?

MS: Georg. She came in, I think, 2008; it was the end of 2007. She was at Kansas [University], was a very well respected medicinal chemist, at that point, Yusuf Abul-Hajj and I think the Med Chem faculty had identified her.

[pause] I don't really want this in the book, but Abul-Hajj, in writing his book gives himself full credit for recruiting Gunda. That was not true. I'm sure it's true from his perspective and his book is written from his perspective.

Frank Cerra was extremely persuasive. He renovated this building for *her*, basically; 717 [Delaware] was becoming available from the Department of Health. We were able to convince him to invest in renovating this building. It had the labs across the hall, two floors, almost three of labs with hoods. If you're not a chemist, you don't appreciate so much hooded space, but on this campus, hooded space is *extremely* rare and it's extremely expensive to build. The powers that be running buildings didn't want to build hooded space for Gunda. So, it was here. These were toxicology labs. They had to renovate them, clean them up, make them look good, but it had all the infrastructure for the hoods. I think without this space, we never would have recruited her. Then, also, he did a lot of start up for her in the College, was able to do a lot of start up of her people and her projects.

Gunda is most famous for her work on taxol derivatives, which are anti-cancer, breast cancer… It was the first drugs that were effective against solid tumors. There were a *lot* of people who worked on taxol, but she was one on the forefront. She was very well-

known for that. She has other drugs that are on the market, which is, actually, fairly unusual for an academic. She's brilliant. She works incredibly hard.

We were having a faculty meeting as she arrived. We had her parade the twenty-five people she had brought from Kansas. We brought them all in, lined them up in front of the faculty and introduced all of them. They were grad students and post docs and technicians and a couple of faculty. I think mouths were just open, because nobody else in this College, not even [Philip S.] Portoghese who is our equally famous medicinal chemist, ever had a lab that size. They filled up all this space.

She was department head for Med Chem. She was fairly careful to separate Med Chem from what she created, the Institute for Therapeutics Discovery and Development, ITDD. That's still going very strong. The idea was to have a sort of semi industry-like environment that could get drugs developed. The ideas for the drugs were, and have come, from the whole University and from [University of] Mayo [Rochester], some from the Hormel Center [Institute]. Anything that people needed working on, they would work together to get the funding for it, and her people would work on it. She hired five people from industry, fabulous scientists—some had been in academia, as well—and built this ITDD that's been fabulously successful. So, it bumped the whole College *way* up in our research rankings. It set, I think, more a important sort of a goal of what could be in an academic setting for all the other faculty. She has done very well. The department's done very well under her leadership.

Part of the discussion with her was that she was supposed to pull [Robert] Bob Vince back into the College, and he wasn't having any of it. Until just recently, under Lynda [S.] Welage, she was able to have him associate more. His Center for Drug Design really *should* be part of ITDD. Philosophically, it's a part of the bigger picture that Gunda has. Drug design is one element of getting new drugs. She tried and tried, but he was not happy with the College…really with the department, at that point. He felt that Abul-Hajj was trying to steal his money. I think he felt that Gunda would, as well. Steal is probably not the right word, but take, use, whatever.

She has been enormously successful, continues to be. She's our first Regents professor, last year. She gets all kind of national awards, but, mostly, it's the role model piece of it that is *so* important to the College. That was a great success.

At the same time, then, we were doing the curriculum change. We had the science going forward. There were some practices changes, as well, at that point, and the curriculum, so it was an extremely intensive period of time from about 2007… Well, the last ten years that I served was busy.

LR: What sort of practice changes come to mind?

MS: In 2006, the [Minnesota] Legislature approved Medicaid payments for medication management for pharmacists. We were one of the first states—I don't know how many there are now; there are some now, I think—where the state would pay for medication

management. There were some requirements to qualify for that. For instance, pharmacists had to have a consultation room in the pharmacy. They had to be really providing medication management, [medication] therapy management, MTM, which is managing a patient's medication to optimize use and, then, following the outcomes, and so on. The payment was generous. It started, I think at about $140 an hour, which is really good payment for that. I think it helped shift the idea that pharmacies were going to exist on dispensing fees, which kept going down and down and down, and could actually have an alternate source of income that was taking care of patients. Before that taking the payment for MTM or pharmaceutical care for patients was almost non-existent. There were a few places, insurance companies, that would pay some. But, when it's not paid, it's from the goodness of your…well, it's from the altruism of your *profession*, but it's not as real.

We also got authority to administer immunizations approved. I'd have to look up the year that pharmacist first were administering immunizations. That was really important. First of all, the chains adopted it, where they really did not adopt MTM very much. They required their pharmacists to give immunizations. You had to be certified and we taught the certification course. It made pharmacists touch patients and a lot of people who went into pharmacy went into pharmacy because they didn't want to touch patients. Let's be honest, you know. We're quite comfortable with dispensing drugs. So, it brought down all kinds of walls that, then, I think drove some pharmacists into a more advanced level of practice. The combination of those two things… We've expanded immunization authority and other authorities since then.

The other thing that happened in that era is what you call collaborative practice. That is that a pharmacist, under the signature of a doctor allocating authority, can do anything within their training that the doctor allocates. Especially within health systems or clinics where there are practices, pharmacists were being allocated the right to change prescriptions, write prescriptions, mostly not initiate, because they didn't do the diagnosis, but to access. If the blood pressure was changing, they could change the drug. It depended on what the physician allocated under collaborative practice. That, also, then, greatly expanded the role of pharmacists. That was all happening in that era, as well. It was a very, very active, intense period of time.

LR: It's so striking what you said about pharmacists not wanting to touch patients. Is that something that you hear from students often as to why they choose pharmacy?

MS: Not now. No! No, not now. Now, we teach them leadership, but we teach patient care from day one. Part of our curriculum change was to *really* integrate pharmaceutical care into the first year. So, they are taught from the beginning and have experiences where they have to touch patients. In the lab, the Pharmaceutical Care Learning Center, they do it on each other to begin with and, then, on patients. No. I think now, for admissions, every student knows to say that they want to take care of patients—and they do. They very honestly do. I think in my era, you much more heard, "I chose pharmacy because I wanted biology and chemistry," because it didn't involve touching patients or it was something you could do behind the counter. [laughter] They built walls in pharmacies, you know. When I first interned, you didn't call them a patient. You never saw the customer. If they

asked a question, it was an interference. So *huge*, huge changes in a profession. But now, no. The students graduate wanting, for the most part, to have some patient care in their practice and will choose jobs that… I'm sure there are some who still graduate wanting mostly to dispense, but those jobs are going away. They wouldn't tell *me* they wanted to just dispense. It's clearly not acceptable to say that anymore. Yet, there are probably some who want a set-hour job where they are dispensing and get to go home and whatever. But, those jobs have become pretty painful in that the numbers of prescriptions have gone up and they're overworked. Even if they think they're going to get a lot of patient contact, they don't because their role in getting the drugs out is pretty intense. No, the students want patient care jobs.

LR: That's so interesting.

MS: Yes. That's the shift in the profession from pharmaceutical care with Linda Strand and Bob Cipolle to the first decade of the 2000s. That was the shift. That's a very rapid shift in a medical profession. We're still working on that. We're not there yet.

This 2006 practice change with the State was a *huge* motivator; although, I think we still have only about 300 pharmacists in Minnesota who are certified by the State to be paid for Medicaid MTM. Now, some of that is that other people are doing patient care practice but they aren't doing much state Medicaid. They're doing it in health systems or in hospitals. There are a lot more but not as many as you'd like to see who actually, then, charge Medicaid for the Medicaid patients.

LR: One of the other things that comes to mind when we're talking about curriculum changes is changes in the Pharm.D. degree. I think it would be valuable for us to talk about how the view of that degree has changed over time. What was your impression of the Pharm.D. when you were in grad school, when you first came to the U?

MS: In the early 1970s, there were places developing the Pharm.D. and Minnesota was among those, and Kentucky was a big one, and Michigan, and then California schools were all Pharm.D.

We were aware of it. Purdue was behind. We had a course added to our curriculum in 1969 that was called Clinical Pharmacy in the fifth year of the curriculum. The pharmacologist who developed it was [Robert K.] Bob Chalmers, who, subsequently, died [in August 2011] of cancer. He was a pretty famous educator. He was a pharmacologist. He had taught us our pharmacology. He taught clinical pharmacy but really just taught us pharmacology. He didn't *really* know what it was. I mean, he had an idea that he was supposed to teach us diseases as well as the drugs. We were pretty cynical about it, maybe because it was our last year of pharmacy school, maybe because we weren't seeing any patients. There were no practice components to the curriculum. It was, like, well, you don't really have to study for this. We had it taught last year. I remember they added the common cold, you know, but there wasn't any real disease orientation to it.

Personally, at that point, I had made a decision to go to graduate school, because I'd been doing research. I really had no real idea of what the Pharm.D. and clinical pharmacy was about, despite Bob's best efforts. [laughter] I wasn't really interested in it. I had decided I didn't want to go to med school. And this was the middle of the Vietnam War. Stuart [Speedie] was draft eligible. We were married by that time. He graduated after four years, so he had started graduate school, which no longer excused you from the draft. Anyway, he was in graduate school at Purdue, so my choice was to stay at Purdue, anyway. It would have been really difficult to go to medical school in Indianapolis or whatever—and I didn't want to go to med school. I didn't want to touch patients. [laughter] No! I was not that interested in medicine, per se. I was *very* interested in science. Microbiology was beginning to emerge. The first restriction enzymes were discovered. There were all kinds of exciting things coming out. I know a couple of classmates who did Pharm.D.s. [James] Jim Cloyd [III] who I worked in the lab with. He was in the class below me and, actually, went home and practiced pharmacy for two or three years before he went into the Pharm.D. in Kentucky. It was still fairly rare. I think we had more of my class that went on to med school than went on to the Pharm.D. It was quite rare. Anyway, I went to grad school.

I'm trying to remember whether Maryland had an add-on. Sometime, along the way, they developed the add-on Pharm.D., the two-year. But we had very little to do with it as a basic scientist faculty. They added the internships, the undergraduate internships. It wasn't until the late 1980s that the Pharm.D. issue became really pervasive, I guess, in the discussions in pharmacy schools. There was a lot of support for going to entry-level Pharm.D. from the professions. The APhA [American Pharmacists Association], the accrediting body, had all issued these statements that we should be going entry-level Pharm.D. But, the basic scientists didn't see the need for it, including me. The add-on Pharm.D.s who felt that the entry-level Pharm.D. would diminish their degree—[those] that were faculty—teamed together and opposed it. So, it took a very long time for the schools to vote for an entry-level Pharm.D., including Maryland. I know we voted it down. [William J.] Bill Kinnard [Jr.] was my dean and he was on the accrediting body. He was part of the group that had signed this letter of intent that by the year 2000 every school had to be converted to an entry-level Pharm.D. He was pretty desperate to get his own school onboard, so he didn't let up. I remember a great faculty meeting in a church, in the Edgar Allan Poe Church, that was near campus, and we succeeded in voting it down. I don't think I'm proud of it at this point, but that's where we were.

Then, I had some experiences with the Pew Commission about the future of pharmacy. That was *very* much pro pharmaceutical care, pro entry-level Pharm.D. group. The AACP [American Association of Colleges of Pharmacy] had a commission to implement change in pharmacy education. I'm not sure who chaired that. Anyway, that was *very* persuasive that pharmacy needed to go entry-level Pharm.D. So, I changed my mind.

Kinnard had another vote early 1990s and Maryland voted to go entry-level Pharm.D. Then, we had to fight for it. NACDS, National Association of Chain Drug Stores, was being led by Ronald L. Ziegler, who was President Nixon's press secretary prior to becoming NACDS president in 1996.

They were inalterably opposed to the entry-level Pharm.D., because they thought they were going to have to pay more for Pharm.D.s and that it would cut down on the… At that time the demand for B.S. pharmacists was very high and they were *very* active politically in trying to defeat the entry-level Pharm.D.

There was a time in, maybe 1992, in the legislature in Maryland—because we were close to Washington [D.C.], I think—where they introduced a bill that required that the University of Maryland School of Pharmacy retain its B.S. curriculum indefinitely. So, they put all the faculty on buses and they hauled us to Annapolis to meet with legislators to try to persuade them to vote down this bill. We were assigned legislators to go see. My experience was to go see this legislator and I walked in. I had my folder of material. I'm a basic scientist, you know. I am not in politics, at that point. I start in about this bill and he says, "No, don't even talk to me about it. I've already traded away my vote on that bill." That made me mad. [chuckles] I left.

Having to fight for it, it built a commitment to it. So, once I was persuaded, I was really persuaded, I think.

Coming to Minnesota… It had been very active in the early Pharm.D. and had voted as the faculty to go entry-level Pharm.D. and, then, been held up…the same kind of resistance thing. Then, with the letter of intent, they had persuaded the Regents to allow the Pharm.D. So, they had a curriculum designed when I came. It was done, you know. By that time, I had fully embraced it. I think it was the right thing to do *and* I had Strand and Cipolle working on pharmaceutical care. This was the birthplace of pharmaceutical care. You better learn what it's about and support it. That was really that transition toward the Pharm.D. I think that whole conflict was repeated over and over and over in schools of pharmacy across the country. We were unique a little bit because of [Lawrence Weaver] Larry's leadership in the early Pharm.D. We'd been really into it in Minnesota. The conflict between the basic scientists and the practitioners and so on was repeated over and over and over. We were one of the earlier schools to actually get curriculum implemented.

LR: When you came, even though there was already a curriculum designed, did you still sense tension surrounding the Pharm.D. here?

MS: Ummm… [pause] Well, only in that there was a question of where the resources were going. You're adding a year in the curriculum and you're adding clinical faculty. You have to pay for… You know, it's not a year of basic science that you're adding. So, the tension was around the basic scientists holding on to enough of their hours. They had already given up their labs, not research labs, their teaching labs. I think that was past. I don't think that's where the tension was. In the resource allocation, to be sure. The first four or five years, we really hired a lot of clinicians. We had to. You're teaching a clinical curriculum and pharmaceutical care.

Typical with that, the Pharmaceutical Care Learning Center, the lab, had managed to hire a pharmaceuticist to teach the thing. He had *no* idea what he was doing. He was supposed to be teaching clinical practice and compounding, so it had some pharmaceutics elements

to it. But he was *totally* lost. Two basic scientists, Cheryl Zimmerman and Rory [P.] Remmel, were supposed to help him. They're pharmacists but they're basic scientists. That lab became sort of the center of our curriculum, but it wasn't until we transitioned to clinical faculty—to [Patricia R.] Patty Lind in there—that it actually became teaching pharmaceutical care and teaching the practice. They did not lose their compounding…there's some compounding in it. I think they had agreed to it because this lab would have elements of the basic science labs that they had taught before and that disappeared.

Were there no tensions? There were tensions. I think once you've committed to teaching a curriculum… The tensions were expressed in keeping people from getting promoted. There were tensions between departments, but they weren't specifically against the curriculum or the students.

LR: More resource based.

MS: More resourced based, yes.

LR: What was your impression of how students felt about the Pharm.D. in the 1990s?

MS: Well, the last classes, the 1995, 1996 B.S. classes—we were split by that point—had gone sort of fifty fifty. They were well on the way of having an entry-level Pharm.D. It was just getting rid of the B.S. A lot of the students were already there. I think the culture was there around pharmaceutical care. At the beginning, I'm not sure I was aware of it as much here, but I think nationally, there was some feeling that they were being forced to do something that they really didn't have to do, that they could have gotten a job with the B.S. At the time I started, I think only twelve percent of the pharmacists in Minnesota were Pharm.D. We hadn't really infused the population of pharmacists with the Pharm.D. It's like women, you know, easing in. You don't *really* have Pharm.D.s in the workplace until you've graduated a lot of them. Yes, I'm sure there was, but there wasn't outright warfare. There were always these side fights. The twenty-five percent increase in tuition that I walked into for current students raised a *huge* outcry among students. They demonstrated in [President Nils] Hasselmo's office and so on. Fortunately, then, we were able alleviate that with the Peters' [Mildred Peters and Bill Peters estate] scholarship money. Was that twenty-five percent financial? Yes. Was it partly that it was being imposed on people who weren't getting a Pharm.D.? Yes. Yes, there were tensions among the students.

I'm not sure the students were aware of the faculty tensions, in that period. I talked to the graduates of 1995, 1996. There isn't a lot of unhappiness and there wasn't a lot of awareness. I think as we write this book, that's going to be crystal clear. They're going to say, "We didn't know about that." I think the faculty took their inner personal problems not to the students.

Actually, part of what *I* found different about Minnesota was the dedication of the faculty to teaching, to students. Everybody here has a course prepared by the beginning of the semester. In Maryland, we were often writing lectures the night before we gave them.

[laughter] It was just sort of the culture. We interacted with the students; we had a lot of student interaction. But, the preparation and the thought that went into the whole thing, actually, was much greater in Minnesota. I think the faculty are still dedicated to the students, to making them have a good experience. I think there was more sort of negative attitude toward students in Maryland than in Minnesota. You don't hear it a lot here…grumbling. Sometimes, they're grumbling about students, but not wholesale sort of condescending attitudes. I remember seeing that as I walked in and saying, "Oh, this is maybe a little different."

LR: From your perspective, what has caused that?

MS: Oh, I think it was Weaver. It probably went back before Weaver, but he was *so* student oriented. Yes. I think it was a culture that was built. And I think we've always had topnotch students; although, maybe that's not true when you're in that capitation phase. I know they dropped standards some, at that point, but we, generally, had very high standards and very smart students.

LR: If we could jump a little bit…

MS: Yes, we jump back and forth.

MS and LR: [chuckles]

LR: That's okay.

The DP4 program?

MS: Yes, that was early.

LR: For listeners, this is the Doctor of Pharmacy Program for Practicing Pharmacists.

MS: Right.

LR: Could you talk a little bit about the impetus for that program?

MS: Yes. We were doing, of course, the entry-level Pharm.D. A number of the existing B.S. pharmacists were expressing to us, sort of anecdotally, that they wanted the option to get the Pharm.D. There had been a distance Pharm.D. program in [University of Minnesota] Rochester. I've seen that written up someplace. It didn't really succeed. I'm not completely sure why. I don't really want to speak to it. There was lots of opposition among the faculty to doing the distance education to get the Pharm.D. I'm not sure… I think it was resources—a lot of the arguments are resource arguments—about what it would take to do it and, then, questions about whether pharmacists could do it while still holding jobs. There was this attitude that, oh, well, they can quit their job and come back to school. Well, no, most people who have families can't do that. There weren't scholarships for it. So, there was a lot to overcome.

Henry Mann was associate dean for—I don't know what we called it—outreach, basically. Together we commissioned… I don't remember his name [Tom Pollock]. He had done a similar study for engineering in Continuing Education [CE] around the state. We asked him to do a survey about how much demand there was around the state and what people were willing to do. What we learned from him was that it needed to be asynchronous. They needed to be able to do it at 2:00 a.m. in their jammies, you know. It needed to be computer based. They would come to campus some, but not a lot, not regularly, because they're coming from all over the state. It could be stretched out. But, for the rotation part of it, which is critical, they needed to be able to have some flexibility. They weren't going to take a year off to do the rotations. With those parameters in mind, we designed it—we hired Kristin Janke to run it—and developed courses in distance learning. I think he had found, oh, I don't know, maybe 600 who had some interest in getting a Pharm.D. That ended up being 150, but I think that was still a success. It *really* had an impact on people who were in jobs where they could see the inevitably of needing a Pharm.D. Interestingly, in places like Thief River Falls and Fergus Falls, people who were out there, it really changed the practice in the far reaches of the Minnesota. They stretched over five years. They took course work. They came in for some lab work, just like a weekend or two. But, for the most part, they were on their own. The rotations could be done in their site, a lot of them, and, then, they had to do one intensive rotation in a real clinical practice setting and they had to be doing pharmaceutical care to get the degree.

We had calculated the income on it with a lot of attrition and the attrition didn't happen. People who were committed to it stuck to it. I don't remember the exact attrition number. I could look it up. It was fairly minimal. People stuck with it and they got the degrees. A lot of them are among our leaders today. [Michael T.] Mike Swanoski was one of them. Julie Johnson was one of them. Anyway, lots and lots of leaders… Jason [A.] Varin was one of them. They were, then, perfect preceptors for our Pharm.D. program, because you're expanding your clinical rotations, and we're wanting them out around the state. How are you going to train those people except by a program like the DP4?

Then, we did South Dakotans. They had a smaller demand, didn't feel it was worth setting it up. We made a deal with South Dakota that we would take South Dakotans.…lots and lots of them from Rapid City. They were almost a cohort. They could get their degree from South Dakota State or from [University of] Minnesota and all but one picked Minnesota, which is interesting. [chuckles] So, there are a lot of alums out in Rapid City that were part of this DP4 program.

The idea that it was going to end… We admitted classes, I think, for four years and it was up to a five-year program. The tail end of it went out, I think, in probably almost nine years. It peaked. We got the vote by, I don't know, maybe one vote in the faculty assembly. We were able to persuade the faculty to vote for it. I think it was a great success just in terms of having preceptors out around the state. When we went to Duluth then, we had preceptors. I think it took some desire for people to sign up for this. They had to really want it and I think they really did and, then, they changed their practices, because they had experience in doing it. I think it was a great success. That was the DP4.

It also laid the basis through Kristin, who is an educator—she's not a pharmacist—for the distance learning that underlined the Duluth program. We had *lots* of experience with distance learning. We also did, under Mary Beth O'Connell's leadership, a geriatrics certificate that was distance learning. That had, maybe, thirty people that went through that. So, we had quite a bit of experience. We had sent up a distance learning unit, which still exists today. It brings in a fair amount of tuition into the College. Some of it is pharmacy CE. Some of it is for undergrads, much to CLA's [College of Liberal Arts] dismay. We get a fair number of people who take pharmacy and drug related electives with distance learning within the University.

LR: For faculty inside the College, what sort of hesitation were they voicing to the DP4 program? To the people you had to convince, what were they not convinced of?

MS: That it would break even. That it wouldn't take their resources. This was still a very resource tight period. We were hiring still to implement the Pharm.D. and to build up the clinical faculty. So, we weren't hiring many basic scientists, at that point. I think they thought it was one more element of change, one more thing that the College was trying to do that would use their resources—"their" in quotes—resources that could be put to better use. [chuckles] I think that was behind it. I'm sure the rhetoric had some concern about distance learning. I don't remember the whole rationale for not doing it.

Henry and—why can't I remember these guys' names?—the engineer [Tom Pollock] had developed a very defined spreadsheet of how much tuition we had to charge to break even and how many students we had to have. It had this attrition rate built in and so on. We were hiring faculty to teach this, plus Kristin. It did take resources. I think it broke even over the long run. I don't know that I've ever looked at the full accounting of it. By then, we had more money. I think during that really resource tight period, people hadn't realized…

It was [Mark G.] Yudof who, then, gave… We were implementing a third more of the curriculum with student tuition. That was money that was coming to us through Yudof's finance system. Until we had Yudof and his Incentives for Managed Growth where you got to keep all your tuition, there was no confidence that those resources would come in from a new program. It worked for us. We are a shining example of Yudof's financial system promoting growth and innovation.

LR: Can you talk a little bit about the closing of that program?

MS: The closing?

LR: Did the DP4 program not close in 2007?

MS: It was designed to close. We were going to enter students for four years and, then, close them out. Was it in 2007? I'm not sure.

LR: In 2007.

MS: It closed because we were done.

LR: Ok.

MS: The distance learning people had shifted to Duluth doing ITV and, then, developing these undergrad courses and so on. All of this happened sort of seamlessly.

LR: So it was intended to?

MS: It was intended. That was part of the design. Part of it was to push people to enter. Maybe it was three years; I don't remember if it was three or four. "If you don't start this now, you're not going to have the opportunity." That was part of the messaging.

LR: Interesting.

MS: "Now is your time." [chuckles]

LR: Can you talk a little bit, perhaps, as it relates to the DP4 program, but more broadly general reflections, about the relationship between the College of Pharmacy and practicing pharmacists, the pharmacy community here in Minnesota on how that changed over time during this period?

MS: Oh, during this period… Ummm… Well, there's a lot I don't know. Weaver had, in some ways, antagonized some of the community, because he was pushing so hard for the Pharm.D. and so on. He was *very* visionary and he was threatening to them. On the other hand, they love him. In retrospect, they love him. They admire him. They think he was wonderful. But, I know there were tensions then. [Gilbert S.] Banker came in and what I hear is that a lot of the community really didn't like Banker. On the other hand, he had these committees, Task Force 1 and 2, that were all built of practicing pharmacists. I'm not sure of the truth about Banker and the profession.

So, where were we at the time? We certainly had support through the [College of Pharmacy] Alumni Society. The Alumni Society has always been robust, one of the leading ones in the University. The Century Mortar Club [CMC] has always been supportive. There was a lot of sort of support.

On the other hand, I don't think Weaver or Banker had an advisory committee. Banker had these task forces, but it wasn't until I set it up in 2002, I think, that we had regular Board of Advisors, which also builds relationships with the community; although, it was intended to draw from all aspects of pharmacy. Then, there was the Pharmaceutical Care Project. So, you had Strand and Cipolle out there pushing pharmacists to be different, to practice differently. I think that was threatening to some of them. On the other hand, they had a group of fifteen or twenty pharmacists that were paid to do pharmaceutical care as part of this experiment that was funded. So, I think it was sort of bimodal, at that point. I

think there were people who loved what the College was doing and pushing and, then, there were ones that were observing what was happening nationally and seeing that change was inevitable, and they didn't want to change. I think it was an understandable mix.

I'd have to look at when it was. Maybe in the year 1997, we did our first visioning session about moving the profession forward that I initiated and organized along with leaders of the various pharmacy organizations in the state. It drew equally from MSHP [Minnesota Society of Health-System Pharmacists] and MPhA [Minnesota Pharmacy Alliance], Board of Pharmacy, and the College. We had about thirty people. The idea was to say what do we need to do to advance the profession? We met for a whole day and talked. Coming out of it were actual commitments of next steps of things to do to move the profession forward in Minnesota. I can probably get that report for you. That would be useful for you to have.

LR: That would be great.

MS: Excuse me for a second while I make a note before I forget it.

[pause]

MS: It was a commitment of legislative things, of individual commitments, of all kinds of things that needed to be done that led up to this 2006, that whole year of an agenda of advancing the profession. We did that twice. The second one was in 2005. I think that, as much as anything, brought the leaders on board with us and, really, from that point on…well, and working with Julie Johnson at MPhA. We reached out to MSHP. They still use our conference room for their board meetings and so on; although, there was a little more antagonism with MSHP. It came from us joining the students into a single organization and they wanted their separate hospital pharmacy group of students.

LR: MSHP?

MS: Yes. Yes. So, they were quite unhappy with us. That was coming nationally, as well.

Also, we were working on—I was asked to chair a couple of times—a task force that was supposed to combine MSHP and MPhA. It never happened. Now, they're working together very well on the Minnesota Pharmacy Alliance, but they're their separate organizations still. Around this, Wisconsin is a combined association. Iowa is a combined association. We should be, but the fact that they're working well together with the College now is sort of a miracle. So, it happened over time. They did work on these retreats. I mean, they worked together. They brought different perspectives. They talked. These were the leaders that we brought together. I think that brought a lot of respect for the College and all we were trying to do, and allowed us to say what we wanted to happen and them to say what they wanted to happen, and to agree to work together legislatively, and with change efforts. I would give a lot of credit to that initiative for bringing the alumni…

Then, also, the other tension was… No one early in 1995, maybe before I was even there, nobody was paying preceptors to take students. No school was. It was a voluntary thing to do. I walked into a demand that we pay the hospitals. It was the hospital group that wanted to be paid for the students they were training. Now, whether that's wrong or right… There are still schools that don't pay their preceptors and there are institutions that take their students. I think it had already been agreed to pay a few of the hospitals, Ramsey, Fairview, whatever, for taking students in 1995. Well, I took that and with the new tuition money… I said, "It's not fair to pay the hospitals and not the community." So, we instituted a payment to preceptors for students being trained. I think that decreased a lot the antagonism, that the College was taking advantage of the practice community. That goes on to this day.

You know about MERC, the Medical Education and Research Costs commission. That was set up. It was pre-set up early 1990s to cover the costs of medical training in the communities. Nursing was part of it. Dentistry was part of it. Pharmacy was not part of it. So, I made an appearance in front of the MERC commission and got pharmacy accepted and written into legislation as a clinical profession in 1996, I think…1997—one of my great successes. [chuckles] I didn't realize the impact of it, I think, to begin with. State money goes also to preceptor sites. So, they were making money, some of them a *lot* of money for precepting students paid by the state. The University doesn't get that money. We manage the system that tallies…that reports the number of students, and how much effort they've done, and how many students they had, and so on. We serve on a task force. It was, actually, a formal government commission to begin with, but, then, became sort of a committee. That was pretty highly acknowledged. It became a *lot* of money that's being distributed across the professions in the state. It's fairly unique that the state does this. We kept our $500 a student that we pay per rotation.

Nothing speaks like money. Well, maybe other things speak like money. I think working that out healed a lot of antagonism, as well. So, yes, through a variety of efforts and, then, keeping the Alumni Society strong and the CMC strong… We had a lot of community support and working *with* the community.

LR: Can you talk about the Center for Leading Health Care Change? The vision behind it? The impetus for it?

MS: Sure.

That was 2007, I think. Lowell [J.] Anderson was largely responsible for it. He had, I think, just retired from practice, and did it, initially, almost as a volunteer, but, then, we hired him as faculty, as well, because he's fabulous. This tied in with the leadership initiative and with, of course, the change in healthcare that was occurring in that period. The theme is educating leaders, leading change. It had a membership of faculty and, then also, some outside members. We've now added student fellows. The initiative was both to look at the leadership education internally but, also, to educate leaders externally. There was an internal and an external component of that. We ran a whole series of seminars on leadership in pharmacy and brought in, again, the community. It was very well attended.

Leadership has been a theme of this College and of this community, I think, for a long time. So, there were a lot of people who came to that. We did some managed care symposia, as well. Norrie [A.] Thomas led those. Kerry [K.] Fierke led women in healthcare [Women Impacting Healthcare], a series of five programs that were all focused on leadership, elements of leadership in the community. And, then, we also paid attention to the curriculum, the leadership curriculum in the College. So, that's the educating leaders part of it.

The leading healthcare change part of it was a combination of helping to implement medication management or pharmaceutical care. I think it was driven partly because we felt that Linda and Bob had alienated a lot of people with their rigidity around it and, yet, patient care had to move. It was the idea that there were lots of things to do that would move this practice forward besides their very rigid approach.

We started, what I think is still going, a network, called Med/Ed Rx. We got a contract from the U, so your UPlan pays for medication management for you. They gave us a contract to run a network of medication management—providing pharmacists around the state. The provision, because of the unions, was that it had to reach every University employee in the state. We had to recruit a lot of pharmacists around the state to be certified and we used the state's certification process. Medica, who is the payer, if you will, for the UPlan, agreed to pay, so we never got into billing. It recruits pharmacists. It publicizes the availability; although I don't think they've done that as well as we would have liked. It certifies pharmacists. It does quality control on medication management for UPlan. Then, we added state employees, SEGIP, State Employee Government [correctly Group] Insurance Program. So, we have two clients. We've not added more. We probably should. It also served as another source of income for a lot of pharmacists who wanted to do medication management. That was one important change.

The other was a task force [Working Group on Minnesota Pharmacy Practice Act, 2012] that Lowell put together to talk about board rules…Practice Act. The Practice Act we have has been tweaked, but it was initially designed in 1937. Only now are we talking about a wholesale Practice Act change. A lot of what Lowell did with this committee is just now seeing fruition; although, it forced changes in the Practice Act. That was a very powerful element for change.

A lot of what we do is coordinate the efforts of all the faculty who are working in practice change. They come and they talk about what they're doing and we get interaction between people and you get the College involved in practice change but with some coordination among the various faculty. Marsha Millonig, former executive director of MPhA, was on it with some outside pharmacists, as well.

It's still going. I think it's less effective without Lowell in charge. I was sort of co-chair, but mostly to bring in resources. We did have a lot of donors who donated to it, so it had money to work with. We brought in outside speakers. We brought in student speakers on either leadership or change initiatives. It was pretty visible. Then, we added the student fellows, three per year, and they're quite active.

LR: I'm curious… What were students taught about leadership?

MS: Well, it starts out with an initial course. It was elective to begin with; it is now required. It talked about elements of leadership, elements of change. It's really change leadership that we teach, but also the difference between positional and grassroots. Leadership is the *key, key* component. If you ask these students if they're leaders, they'll say no, because they don't have a leadership position. So, we taught them about leadership from within, leadership within a group, how you initiate change. We did the Strengthsfinder [assessment] so they would know their strengths and how to work in groups. All the basic elements that you learn with leadership was in the first elective. Then, there was a more advanced sort of discussion elective. Then, they do projects with leadership networking partners, who are mentors from the community. The third year is the project, a change-causing project. Then, in the fourth year, there are leadership rotations where they're really doing their rotations with acknowledged positional leaders. That was put together into an 18 credit Regents certificate, as well. So, it's a designation on the transcript. I think, to begin with, they had twelve to fifteen a year who would do the full eighteen hours. It's now forty or fifty. Kerry Fierke in Duluth carries it on that campus and Kristin Janke and Todd Sarenson are here. It's grown. Now, the beginning courses are required.

LR: From your perspective, was this emphasis on leadership specific to Minnesota or something that had a growing appreciation in the field more broadly?

MS: There was an AACP president before me, Barbara [G.] Wells, who made leadership *her* theme. I think she was probably president in 2003. I could look it up. [2003 is correct] I think she started the discussion about leadership within the academy. It now is written into accreditation standards. As you visit schools, it ranges from sort of a once or twice a year leadership seminar that students go to. We are by far, I think, the most invested in leadership as a theme—I don't know all the schools—as required material that is whole courses and separate courses and so on. Ironically, there is not a course labeled leadership in this curriculum. It's built into—I forget what it's called—sort of the change in profession awareness and leadership. So, it's there; it's just not called leadership. We hired faculty. I had three faculty whose area of specialty is leadership, which is *very* unusual in schools. It is our thing.

When you are AACP president, you serve for five years after your presidential year on the Argus Commission, which is sort of a visioning topic-based report. There was one—it's on my publication list—in, say, 2008 that was on leadership education. At that time, Minnesota and University of Washington or Washington State were the only schools that had an actual leadership curriculum. Now, with the accreditation standards changing, that's become *much* more common. There are elements of leadership in every curriculum. But, I don't know that anybody is as dedicated to it as we are.

LR: This is separate from leadership… One of the major themes in some of the other oral history interviews with faculty in the College of Pharmacy has been a focus on the Academic Health Center [AHC].

MS: Yes! Yes! Absolutely.

LR: Can you talk a little bit about what it was like while you were dean to have the College enmeshed within the AHC? Relationships with the other health science units? Overlap between your students?

MS: You can't look at this College without looking at it as part of an academic health center. I'm colored, of course, by the Frank Cerra Academic Health Center, because for, I don't know, fifteen years, he was my boss. He defined the Academic Health Center for me.

Being a dean is sort of a lonely job, because you can't talk to anyone within the College about personnel matters or… There are a lot of things you can't talk about. There are lots of things you *do* talk about, but, problems, you need someone else to talk to.

I think under Frank, the Academic Health Center deans were very close. We met weekly. It started out three hours a week. Tuesday afternoons were all AHC. Then, that gradually decreased. I think it went to every other week and went to a couple of hours as things got organized. We were in the loop of the University through Frank. We met as Twin Cities deans, as well. Those deans felt very scattered and we felt we were this tight group of people that liked each other, that worked together—sometimes argued—had initiatives that we had a say in that went across our colleges. We served on the search committees for each other's schools when there was turnover, whatever. It was a very close and fairly powerful group.

Frank approved our budgets. He approved our compacts, the first level approval. You know, we went against his wishes sometimes, but not many. It's like you only got so many of those that you could exercise. [chuckles] He was very much in control. His vision was wonderful. It was fully interprofessional. He loved pharmacy. He was a critical care physician who worked with the nutrition impact on critically ill patients, and worked with pharmacists in Buffalo [New York] before he came to Minnesota and, then, worked with pharmacists here. He was a total advocate for pharmacy. I think, actually, honestly, every one of the deans felt he was a total advocate for them. He was our liaison to the bigger University, as well. We had a Deans Council. Yudof met with us. [Robert H.] Bruininks met with us. [Eric W.] Kaler never met with us rarely.

He [Cerra] had all kinds of interdisciplinary science initiatives. Most importantly, he put $2 million aside for interscholastic research. We had to make it "interscholastic." It started out "interdisciplinary" and the applications were from surgery and pediatrics. That's like, no, this is not what we have in mind. You had two faculty members from two schools who put together a proposal that was different from either of their research that they had going. It was a new project, a grant. They were large. They were $200,000, which is enough to

hire a post doc to really get a project going. I think they picked about eight a year, maybe nine. They were two year grants, so if you do the math, it's five a year, but I know it's more than that. Somehow, it worked. Maybe he put more money into it. Anyway, it was *highly* incentivizing to faculty to be able to get money for new projects. They were all interscholastic. They all drew on more than one discipline. Something over seventy percent of them went on to get NIH [National Institutes for Health] funding. It was *enormously* successful. Then, he had small grants, $25,000 grant applications, as well. People who were doing science were *well* tied into the AHC, but, also, committed to doing interprofessional work. The advantage for Pharmacy was that for the Medical School, Pharmacy was the easiest group to collaborate with, because there were always drugs, a similar kind of work that would easily align with the medical approach. We had collaborative grants with, especially Vet Med [Veterinary Medicine] with animal models—those were very successful—occasionally with Dentistry, more rarely with Nursing, although there were some informatics ones. That was a *highly* successful program. It was all his. We helped run it. He was creative.

Interprofessional education was much slower to develop. [Deborah E.] Deb Powell and I wrote a white paper for him about why it was essential when she was dean in Medicine. The deans voted to have interprofessional education, but it became clear that it wouldn't work until somebody set aside time for it to happen. So, he decreed that Friday afternoons were to be held open in the curriculum for interprofessional healthcare. It's the kind of thing that a leader *can* do. You'll *never* get approval for it, you know. He had enough credibility that people went along with it and adjusted curriculum. So, we put in the first year course, FIPCC, Foundations of Interprofessional Communications and Education or something [Foundations of Interprofessional Communication and Collaboration]. It was small groups. It was made up of interprofessional groups and only this year has Medicine pulled out of it.

LR: Was it student or faculty?

MS: First year students. Faculty led some of the small groups and ran the course, but, also, there were outside people who led these small groups, because it's a lot. You had 800 students across the AHC who had to be accommodated in this course. The first year for our students, first year students, there was some difficulty because of the variation of maturity of the students. The nursing students were younger. Ours were sort of in the middle. The medical students were a bit older and maturer in their professional commitment and so on. But, I think they worked that out. It taught ethics. It taught health systems, lots of topics, communication among professions. What does interprofessional practice look like? They were discussion groups. That's just now ending. I don't know that it's completely ending.

Then, he also promoted interprofessional courses that were electives that students could take where more than one faculty taught and there were students from more than one profession. You had to have both teaching and students that were communicating. Then, we have interprofessional practice rotations. I think at its heyday, we had as much interprofessionality as any place in the country because of the AHC.

The other thing Frank did is advocate for the AHC in the Legislature. I know there are people who think he overdid that, but he brought us resources. He brought the money for the Duluth expansion, for the Nursing expansion. The [Master Settlement Agreement, 1998] tobacco money, he was able to command a lot of for the Medical School. He was *very* whole state oriented, which no one since has been. I thought he was wonderful. I liked working with him. I occasionally fought with him. He was always supportive. He was, to me, the AHC.

The fact that it sort of fell apart… What he couldn't do… He was the one who negotiated the Fairview [Health Systems] agreement to begin with. It was agreed to under duress in 1996, because the University Hospital was losing $50 million a year. I don't think it was the best deal, you know. He, then, forced the Medical School into a single practice plan. If you look at politics in med schools—I'm from the outside looking in—that was *incredible* that he could do that. That, then, facilitated the Fairview relationship, eventually. But, he was not able to renegotiate that contract with Fairview. [Jakub] Tolar has done it. I have to give him credit. [J.] Brooks [Jackson] tried and failed. In the time after Cerra, there was intent to negotiate with Fairview, but it never came off. Tolar has made it happen to some degree, so give him credit. I don't know him well and I haven't been observing like you do as a dean.

Pharmacy has never had a role in the University Hospital that it should have. My hope is that Lynda Welage can make that happen as a clinician. I don't think she has and I don't blame her. I mean, I hit all the walls, as well. It's very interesting because the VP for pharmacy, the labs, and other parts of Fairview is always nominally very supportive and has built excellent pharmacy services in Fairview and educated our students, but when it comes to collaborating with the College to share positions, he's not supportive of the College. Maybe when he retires, there will be more progress; I don't know. Our model is not like other schools of pharmacy that have a hospital that they work every day with, so I think that's a failing. But, we've managed otherwise. We have such strong health systems in Minnesota. You have relationships with all the various health systems, so you have what you need to do clinical education. Would it have been better to have shared faculty with Fairview/University—probably—for innovation. We did have an agreement, early on, in 1997 with Fairview. It expanded greatly the number of students who did rotations in Fairview when we went to Pharm.D. There was a deal and they've held up the end of that deal, that they will educate a large portion of our students. It's not what it could be, but it was okay.

LR: Are you comfortable expanding a little bit on the difficulties with getting Pharmacy involved with the University Hospital?

MS: Ummm… Oh, I'm comfortable. I'm not sure I understand exactly what's going on.

I know Tolar was trying to get money for the Med School and he never embraced the other schools.

Whether *I* could have negotiated it, I don't know. I never saw the path to negotiate with Fairview. It would have had to go through Bob Beacher. We have lots of relationships with Fairview. We have lots of practice sites. They've hired a few faculty, very few. But, it's not like other schools where most of the clinical faculty also have an appointment in their university hospital. Whether *I* didn't know enough to sell that vision or whether there was resistance at the top or whether I didn't have the support of the AHC, I don't know. But, it didn't happen. If it *does* happen, that's going to be my chance for insight. [laughter]

Did it really hurt us? I don't think so. We had other sources of income, you know. I think, to the extent that Lynda is suffering now from lack of money. I don't understand that because I left money. I think she could benefit from a closer relationship where they would support half of the clinical faculty members. I don't know how to make it happen. From brief discussions with her, I don't think she knows how to make it happen either. She knows the model. Yes.

LR: Are there any other major changes that you've witnessed in the College of Pharmacy while you've been here, anything else that stands out as a significant shift?

MS: Well, I think, actually, it's more of a significant failure. We were always able to get extra space. We were *never* able to get contiguous space. Everybody else in the country is building buildings. We got a component of the various science buildings around the stadium. We got this building. We got space here, there, and elsewhere. And we got money to redo the classrooms. So, we got the space we needed, but I have departments that are split across three or four buildings. Frank was never sympathetic to that, because Medicine is spread, you know, over many buildings. In Public Health, every dean they've had has been trying to get Public Health a new building. They all get promised it when they come in and they all don't. [laughter] We aren't even highest on the list. They have a list of needs. We're "pink" and "red" is what gets attention paid to it. As long as the Mayo [Memorial Building] is standing over there, which is a *huge* amount of space that *desperately* needs to be replaced, Pharmacy is never going to get a building.

So, was it my failure to sell it? Was it the University's failure to plan appropriately for space for the Academic Health Center? I'll never know. The fact that we've been able to hold the faculty together as much as we have, with being in six buildings on this campus and two in Duluth, is amazing. People do travel to come to meetings and so on. It's actually not terrible, but you duplicate staff. You duplicate equipment. Communication is harder. It's not ideal, you know. Every dean I know has new buildings, except Michigan—they're worse off than we are—of the Big Ten [Schools]. At Ohio State, Henry [Mann] was able to get some new space, but he doesn't have a new building either. I'm overstating it. I drool at all these new buildings, because of the cohesiveness it creates and sort of the replacement of old type space. We have old type space. I would say, is it a major failure? Or does it really not matter? I don't know. Clearly, we were able to get investments in space when we needed it and we expanded enormously. But, we never got a building. [laughter] Larry [Weaver] may go down as the last one. Frank Cerra made the statement that he was never, ever going to build a discipline-specific building. He was very firm about that. Public Health… Dentistry has one. Nursing would like to have all of Weaver-

Densford. They have some of the same problems. So, we have this sort of uneasy truce with Nursing in Weaver-Densford. We have some of the [Masonic] Cancer [Center] building, but that can only be used for cancer scientists. We have this building, but, you know, it's the Institute [for Therapeutics Discover and Development]. It could be better. It could be better.

Given that we are, of all the schools in the University, the top ranked in our profession, you would think somebody would pay attention to our request, but it never happened, never happened.

L: Did Cerra ever explain his firm position?

MS: Yes. It was built on the interscholastic, interprofessional, that people need to be not siloed, talking to each other. I *agree* with him in principle.

A part I didn't add about the Academic Health Center is that every one of our faculty members—I can't think of any exceptions—has a collaborator somewhere else in the AHC. Some of them are collaborating outside, as well, but almost everyone has a collaboration within the Academic Health Center. So, whether it's the CTSA, Clinical and Translational Science [Award] initiative, which are clinical trials but, also, go into community practice, or whether it's basic science, whether it's clinical and science, they go across the lines very easily.

The fact that this AHC over here is built with no distinct buildings, I credit with the easy exchange. In Maryland, we had guards at the front of each building. To get from pharmacy to medicine, you had to go through a guard with an explanation and who you were going to see. It was just a hassle. You could not take trays of equipment and so on, and the animals, anything across these streets. They were real barriers. Here, whoever designed the AHC, even though they made a brutalistic architecture—which is one of the big ironies, I think, that you build a health center out of brutalistic architecture—it's all joined together. I think that contributes enormously to the interprofessional activity.

So, everybody has collaborators. When I write the section on Innovation Discovery, I will give that a *huge* amount of credit.

The other thing Frank did—I didn't talk about his interprofessional science—is he had these corridors he created that were neuroscience and cancer and aging. He had a couple of others. They were to go across all the schools, as well. They did as long as he was VP. Later, the Med School did a strategic plan and came up with *their* areas, ten different ones, and went to the Legislature and got money for *their* areas. The money was supposed to *all* go to the Med School, which is so anti-Cerra, you know—this was post him—that it destroyed… well, it didn't completely destroy… this corridor idea. The Cancer Center was built by John [H.] Kersey and was *enormously* interprofessional. We had early faculty with appointments in the Cancer Center *way*, *way* before other things. The neuroscience one, we have several faculty who are members in the Center [Institute] for Translational

Neuroscience. That's been very supportive. The CTSI [Clinical Translational Science Institute] grant, which has been now, ten years, I think, is supported across the professions.

So, the other thing the Academic Health Center does is hold these centers where people can belong and collaborate and build collaborations. I think those are amazingly effective. That idea was started under Frank. I think it has continued with this sort of exception of the Med School that wants to be off on its own.

LR: I have a couple of questions here that will sort of reflect on the interview as a whole and, also, help to wrap us up.

As you look back, I wonder do you think your positionality as a woman shaped your deanship in any particular way?

MS: Of course, that's just what I just wrote the chapter on. We'll see what you think.

LR: [laughter]

MS: Ummm… [pause] I started out saying no. Of course, positionality is a different word. I'm not sure. Being a woman, I didn't think about it very often. I didn't see a lot of discrimination. My leadership style was what it was. I would have said, "No." In talking to people, the things they cite are the role model aspects of it and the leadership style. Now, the role model part, I get, because I've heard person after person, not just me, reflect on having a female leader and the importance of that in seeing themselves as a potential leader. So, I think, yes. I think that was exceedingly important. I think it's been important to students. I've mentored both students and faculty a lot for formal leadership programs and so on. I think that's had an impact. I think that, although it's not dependent on me being a woman, the emphasis on fair hiring of women and of selecting women for leadership positions and so on and of a family-friendly atmosphere were mine. Now, I cannot say that Banker and Weaver didn't have that. Weaver didn't hire many women. Banker hired a *lot* of women. What was that? I don't know what that was. Was that availability? Was that his commitment? He promoted the first woman. I don't know him enough to know what that was. Weaver had this inclusive leadership style. Is that exclusively feminine? No. It's *me* and it's cited. People talk about that. But, it's not clear that it's a feminine leadership style. Some people say that and others just say it's you. That's a longwinded answer after a lot of reflection. Yes, I think it made a difference. Certainly, cracking the glass ceiling nationally, I think, was important, also, in providing role models for people. But, I don't know that the school wouldn't have done equally well with a male leader.

LR: At national conferences or in conversation with your female professional peers were there ever conversations going on about the gender dynamics of the profession?

MS: I think, as I've quoted in the chapter, there certainly were up into the 1990s. Actually, Metta Lou Henderson documents it well. There was this fear that women would work half time and wouldn't be effective, and that they wouldn't take positions of leadership, and

that there wouldn't be any visionary leadership for the profession. This conference [International Leadership Symposium on the Role of Women in Pharmacy] in 1987, I think, in England on the role of women in pharmacy… I use the whole quote from Lucinda Maine that as women took over… Oh, the ownership of pharmacies was supposed to be a *huge* concern. As women owned pharmacies, as women took on leadership positions, as women became deans, all these things, all of that went away. Now, women lead all kinds of things.

I, also, talk in the chapter about the models of integrating a profession and the hierarchical thing, segregated horizontally where the women have lower paying jobs and lower status jobs and, then, the segregation vertically where women may dominate certain areas in medicine but not others. I don't think that happens in pharmacy. Certainly, early on, hospital pharmacy was a woman's domain, or more so—although, still less in majority. I spend a good bit of the chapter talking about the women in hospital pharmacy and how they were in charge and leaders and so on. But, that isn't true now. It's pretty well integrated. What I say in the chapter is I think medicine could take a page from us. I think it's very well integrated. Women are very well accepted. They're elected routinely to leadership positions. They're highly respected. Since I was…well, probably after I was in school, this thing about how it being a great profession for women, because they can work part time and so on, you just don't hear that anymore. It has successfully integrated is my conclusion.

LR: I wonder… At any point in your career, did you consider retiring from an administrative role and shifting back to a faculty role?

MS: Nooo.

There was this very intense period—we talked about it at the beginning—well, all of it was intense, but parallel intensities from about 2007 through 2016 or so. There was accreditation. People kept saying, "You'll know when it's time." In 2016, we were due another strategic plan. We had implemented the new curriculum. We were succeeding in science. We hit the peak of our science success in rankings and so on. We got to number two in US News and World Report. My sense was, at that time, that it was time. There was easily another five years of things this College should do. They weren't mine. I wasn't going to see them to the end. It needed new ideas and it was time. It took a year and a half to make that happen. I'm very comfortable both with the length of time I served… I know it was long. [James T.] Jim Doluisio was dean at [University of] Texas [Austin] for thirty years. He talked about thirty years and about how it was ten and ten and ten that the College was completely different phases. I wasn't going to make thirty. [chuckles] I'm really glad I didn't push on. [pause] I think it was time. It was time. To be able to hand it off at a peak of success means you always have that. You don't have the being beaten down until you're forced to retire, you know. So, I'm pretty satisfied with it. I know twenty years was long, but it was a good twenty years.

It did have these phases. During that very intense period, there were things I *had* to see through, that I really *wanted* to see through. I suppose if there had been reasons, illness or other forces, I might have, but there wasn't a reason not to. We were still moving forward.

LR: As you point out this intense period of time, I wonder does the second half of your tenure as dean…do you remember that as being more intense than the first?

MS: No, just different. The first was very intense because we were trying to get things underway, you know, and starting new things and so on. But that period of building the science, the curriculum, and the practice all at once…it was just the amount of stuff going on. Things I had started, I wanted to see through. There was a lot that we started in 2006, 2007, after we got the curriculum initiated and Duluth in place—Duluth was a big one.—then, there were other new things that happened. It does feel a bit like phases. I think after that accreditation in 2016, it was time. It was time.

LR: Is there anything else that you want to share about the College of Pharmacy or changes in pharmacy practice or education before we conclude?

MS: I think the only thing is sort of the concern for the future. There's this whole issue of the decreasing demand for pharmacists. I think Minnesota should be more optimistic than I hear sometimes. There was a presentation last week by one of the candidates for the department head of Pharmaceutical Care and Health Systems. He had a map of the various states and the demand versus the production of students, the number of students they had. Minnesota is in pretty good shape; in fact, they're pulling in pharmacists from other states. But, the surrounding states are producing more graduates than they have demand for. So, there is some risk. But, I think what that says is that you have to differentiate Minnesota grads. You have to make Minnesotans want to hire Minnesota grads. If that happens, I think we're in really good shape and ought to take advantage of it. It would be a huge mistake to really cut back on graduates, because I think ours *are* better and I think we have that connection to the state that's just really important.

I will write a "future" chapter.

LR: [chuckles]

MS: My ideas will morph as I write that.

LR: Sure.

Is there anything else you'd like to get on record?

MS: I don't think so. No. Not right now.

LR: I think that's a good place to conclude then. It's been wonderful. Thank you.

[End of the Interview]

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