

Maria Pintado, M.P.H
Narrator

Lauren Klaffke
Interviewer

ACADEMIC HEALTH CENTER
ORAL HISTORY PROJECT

UNIVERSITY OF MINNESOTA

ACADEMIC HEALTH CENTER ORAL HISTORY PROJECT

In 1970, the University of Minnesota's previously autonomous College of Pharmacy and School of Dentistry were reorganized, together with the Schools of Nursing, Medicine, and Public Health, and the University Hospitals, into a centrally organized and administered Academic Health Center (AHC). The university's College of Veterinary Medicine was also closely aligned with the AHC at this time, becoming formally incorporated into the AHC in 1985.

The development of the AHC made possible the coordination and integration of the education and training of the health care professions and was part of a national trend which saw academic health centers emerge as the dominant institution in American health care in the last third of the 20th century. AHCs became not only the primary sites of health care education, but also critical sites of health sciences research and health care delivery.

The University of Minnesota's Academic Health Center Oral History Project preserves the personal stories of key individuals who were involved with the formation of the university's Academic Health Center, served in leadership roles, or have specific insights into the institution's history. By bringing together a representative group of figures in the history of the University of Minnesota's AHC, this project provides compelling documentation of recent developments in the history of American health care education, practice, and policy.

Biographical Sketch

Maria Pintado was born and raised in Aláquez, Ecuador and attended high school in Quito, the capital. After graduating and while working in Quito, Ms. Pintado met William and Cathryn Jenshen, who sponsored her immigration to the United States. Upon their recommendation and because of her interest in dentistry, Ms. Pintado pursued admission to the Dental School at the University of Minnesota. After completing her bachelor's degree in dental auxiliary education in 1972, Ms. Pintado then taught in the dental auxiliary program while concurrently pursuing a master's degree in public health, which she completed in 1986. Upon the closure of the dental assisting program, the School retained Ms. Pintado. She continued to teach and began working with Dr. William Douglas on biomaterials research. She continues to work as an investigator in the Minnesota Dental Research Center for Biomaterials and Biomechanics (MDRCBB).

Interview Abstract

Maria Pintado begins her interview by discussing her early education, her immigration to the United States, and her arrival at the University of Minnesota, where she earned her bachelor's degree in dental auxiliary education and her master's degree in public health. She then describes how she came to be part of the biomaterials program under the leadership of Dr. William Douglas. She discusses the development of the artificial mouth and the creation of the Minnesota Dental Research for Biomaterials and Biomechanics (MDRCBB). She recalls her time as a student in the program, the only non-dental student and one of three women taking dental classes. She reflects on debates regarding specialization versus comprehensive care in dental education, on student activism in the 1970s, and on relations between dental students and dental auxiliaries. She discusses Dr. Erwin Schaeffer's tenure as dean and Donna Aker, Helen Tuchner, and Kathleen Newell's leadership in the dental auxiliary programs. She also discusses the closing of the Dental Assisting Program in 1982, her pursuit of a master's degree in public health, professionalization in dental hygiene, Dr. Richard Oliver's tenure as dean, Dr. Ralph DeLong's role in the biomaterials program, the founding of the MDRCBB, her teaching and research, the changing makeup of dental school classes with the admission of more women and minority students, the deanships of Richard Elzay and Michael Till, and biomaterials in the Dental School curriculum. She concludes with a discussion of community outreach.

Interview with Ms. Maria R. Pintado

Interviewed by Lauren Klaffke

**Interviewed for the Academic Health Center, University of Minnesota
Oral History Project**

Interviewed in Moos Tower, University of Minnesota Campus

Interviewed on January 29, 2013

Maria R. Pintado - MP
Lauren Klaffke - LK

LK: This is Lauren Klaffke. I'm here with Maria Pintado. It's January 29, 2013. We are in Moos Tower.

Thank you for meeting with me today.

MP: Sure.

LK: I was wondering if you could tell me a little bit about where you were born and raised and your education.

MP: I was born and raised in a small town in Ecuador. Aláquez is the name of the town. I grew up there, went to grade school, in the country little school, and, then went to high school in Quito, which is the capital.

LK: Then, you went to a university in...

MP: Here. I moved to Minnesota here.

LK: What prompted your interest in dentistry?

MP: While I was in high school back home, we normally work in different areas, wherever we can get a job, part time. I had a job in the government dental clinic with a dentist, so I was introduced to that. I worked a few hours after school, so I became interested like that.

LK: How did you end up getting that job?

MP: Because we look for different areas in different parts and so forth. I also had visited a dentist for my own treatment in the government clinics.

LK: How did you end up in the United States for your education?

MP: I always wanted to come to the United States. In high school, we have English as a subject, so we study English and became interested in the culture and so forth. In addition to that, I also took an English course in the evenings. They have the policy or treatment of bringing Americans from different states. They were traveling in there. There were invited to talk to the students that were taking English. So we were exposed to different types of Americans that were from different states, different accents, and so forth. That was very interesting. It became more interesting for me. I wanted to come to the States to get an education, to have an opportunity to get an education, and to work.

LK: Great. How did you choose the University of Minnesota?

MP: How I happened to come here to begin with... I met a couple of Americans back in Quito [William C. Janshen and Cathryn Janshen]. He was an engineer working on this special project for his company. The lady was a teacher. She was visiting there with her husband. I met them. They didn't speak a word of Spanish, so I helped them with Spanish and show them where the markets are and so forth. I was working also a few hours in that same building with a senator, an Ecuadorian senator. They knew of me. They got to know me very well and my interest in coming to the States and studying English. When they were leaving, they said, "If you really want to come to the States when you finish, just let us know. We can sponsor you."

LK: Oh, great.

MP: So we went to the American Embassy and talked to them about it. They said, "If that's what you're wanting to do, when you're ready, let us know. We'll process the papers." At that time, it was not too difficult. It was very easy to do. The senator that was I working with, he advised me, "Why don't you apply for an immigrant visa? That way you will be able to work, and go to school, and so forth." If you apply for a student visa, you know it's very expensive. They want you to put \$10,000 in the bank—we don't have \$10,000, you know—for security and so forth. So I applied for an immigrant visa. It took about a year or so to do all the paperwork.

This couple was my sponsors. They sponsored me. In other words, they're responsible for me here so if I don't get a job or I become ill, I don't become a burden to the state. They would take care of me. They happened to be from the Midwest, from Wisconsin. They traveled. In his job, he traveled all over the world. That's why they were in Quito. They were in California when I came here, so I was with them for a little bit. He advised me, "If you really want a culture that is really American, then you have to go to school in

the Midwest, either Wisconsin, or Minnesota, or Chicago if you want to know what American culture is.” That’s why I began to look for programs and I end up in the University of Minnesota.

LK: Yes. I saw that you did a lot of traveling with your education, as well. I saw that you got your degree here at Minnesota, and, then, went back to Ecuador for a few years.

MP: For a little bit, it was just to visit only.

LK: You said that the sponsors were living in California?

MP: Yes, they traveled to Europe. They were in New Zealand. They traveled all over the world with his job, with his company.

LK: Were you with them? I saw that you worked at Brabant Dental Laboratory [Sacramento, California]?

MP: Yes, I was sometime with them in California when he was working there. From there is when I came over here.

LK: You also did some studies at the University of Washington?

MP: Yes. That was when I was employed here. I was teaching dental auxiliaries here. The government, at that time, had a special program for teachers of dental auxiliaries to teach what is called expanded function, more duties what normally the dentist does. So they wanted to teach it to people that have a higher education. I applied for it and I was accepted, so I went to the University of Washington because the University of Washington offered that particular program. We saw patients and so forth.

LK: You did dental assisting.

MP: Right, to formalize. I have experience back home. Like I said, working a few hours for a dentist there. But here, the University had a special program, a real dental assisting program. For me, because of my English and so forth, that was a way for me to start. So that’s what I applied for and I was accepted and graduated with it.

LK: Could you comment a little bit on maybe the differences between the dental assisting program and, then, the dental auxiliary program, at that time, and your choice there?

MP: Yes. The dental assistant was the beginning of the specialty, let’s say. They teach basic functions and duties to help the dentist. They provide and care for the patient. In order to get a job, you have to be trained in a special program. I guess before they used to go by just experience, but, at that time when I applied, you had to go through the program. The Dental School had a program in dental assisting. It was a very good program. During college, I also worked part time for a dentist, a few hours.

LK: Was that a dentist here in Minneapolis?

MP: Right.

LK: Who was that?

MP: Doctor Kurt King. King was his name.

LK: Was your decision to pursue the master's in public health related to your work in dental assisting?

MP: After dental assisting, I wanted to continue my education. One of the areas that I was very interested in is the delivery of dental care to underserved populations, poor populations. I was comparing to back home, my own dental care needs. At that time, the School of Public Health had what is called a Dental Public Health Program, a master's program. I wanted to do research or to learn how to do research and that was a very good program for me to go. I was able to design, let's say, curriculum and so forth in teaching.

LK: Did you have any particular mentors either in dental assisting or in your master's of public health program that kind of guided...?

MP: What happened is in the dental assisting program when I was teaching there, because of the politics and also the economy, at that time, they closed the dental assisting program. So the faculty was let go. But in my case, the dean at that time, Doctor [Richard C.] Oliver, said, "Because of your teaching experience, we're going to retain you in the dental hygiene program to teach."

[Dr. Jean Frazier and Brenda Johnson (a dental hygienist) supported and encouraged Maria Pintado throughout her education and early career.]

Then, after that, there was just an opportunity, I would say, that a professor was hired, Doctor William [H.] Douglas to create a biomaterials research to do research and also to teach biomaterials to the dental students. When the dental assisting program closed, the dean, Doctor Oliver at that time, said, "We're going to just transfer you to work with Bill Douglas. Your teaching will help him set up the curriculum for teaching the students. Also, you can learn to do research and we can apply your skills in doing research." So they transferred me to this biomaterials, where I am right now, to work with Professor William Douglas. He was an outstanding scholar and person.

LK: After getting your degree here at the University, did you just like the biomaterials program, so you wanted to stay here? Were there any other reasons that you...?

MP: After I got my master's program, the wonderful part about it is I was able to still work full time and take classes as I could in the School of Public Health. So both were

very nice about it. It took me some time, several years to finish. Because the courses, I had to take them in sequence and wait for the next year. But it worked out very well.

What happened with this biomaterials program, was novel from what am I right now. It was so new and so innovative, scientifically innovative that there was no other program in the United States that offered what this program offered. Professor Douglas, he felt that I contributed in my own way to his biomaterials programs. He wanted me with him. So that was why. There was no other program in the United States which had development in terms of the research that we had. We had developed here what is called the artificial mouth which is the first one in the world.

LK: Right, right. I have some questions about that. It sounds like you were very busy.

MP: Oh, yes. I worked very hard. There's no question about it. However, the opportunity for me was there to succeed and that's what I wanted.

LK: That's great.

Once you got your dental assisting degree, you began teaching in the dental assisting program?

MP: Right, the program, yes.

LK: Did you do any research as a dental assistant?

MP: No. No, because I was mainly teaching clinical as well as laboratory teaching and course teaching. I was very busy.

LK: I saw, I think it was something in Doctor Holland's history [History of the University of Minnesota School of Dentistry: 1888-1988], about your work with John Conry on sealant studies.

MP: Yes.

LK: Would you want to talk a little about...?

MP: Yes. John Conry, he was a dentist in the children's clinic in Pediatric Dentistry. We had in our laboratory the equipment to do so. So both of us decided it would be nice if we do a study at that time in fissure sealants, so that's what we did. It was one of the few things that we did, at the time.

LK: Is that kind of how you started to become interested in biomaterials or did that come more with your work with William Douglas?

MP: With my work with Doctor Douglas.

LK: Okay.

MP: I was helping him to design in the curriculum for the laboratory to teach biomaterials to the dental students. So I had to use materials in order to write the curriculum then, the laboratory exercises, and so forth.

LK: Did you continue to do clinical work while you were researching and teaching?

MP: Nooo, there was no time for it. But whenever I could get my hands on, I would do the research, but, no, there was just no time.

LK: Could you maybe talk a little bit more about your work with Doctor Douglas, like what his leadership style was like and what it was like to create that course work?

MP: Yes. He was an excellent type of a person. He was really a gentleman and scholar, I would say, an incredible, bright, bright person. He was able to see the void, let's say, in dentistry in terms of research, what hasn't been done, what hasn't been created, or what we need to do. He would go and set it up to do that. So he would have me and say, "Okay, this is what we are going to do. Let's work on this," or "Let's work on that." He was an incredible mentor, as well as director. He had directed a lot of grad students, Ph.D. students, post docs, and faculty, also. Yes.

LK: While you were developing the curriculum, you said you began to do some research in biomaterials?

MP: Right, because of the laboratory. That's what he was creating...the research, so we did both at the same time.

LK: Would you want to comment on any of your major projects that you were working on?

MP: One skill that he had is to utilize people depending on their skills, what they could contribute. So he was asking them more so in those areas. So my participation was not as a solo researcher, but participating with him in his project. One of the main things is the artificial mouth.

LK: Do you want to talk a little bit more about the development of that?

MP: The artificial mouth, there were several people involved. Doctor Douglas, we call the artificial mouth the brain child of Doctor Douglas, and, then, Doctor Ralph DeLong, which is another scientist also with him. With me, like they would develop a certain way of doing, and then I would try it, and see if it doesn't work. I would contribute with the practical aspects.

LK: What was the purpose of the artificial mouth?

MP: The artificial mouth was to simulate the chewing parameters the patient, so we can do research in vitro for anyone, for faculty, for companies, and so forth, to test, to evaluate rather, not test, to evaluate materials that were developing.

LK: Great.

MP: So the manufacturer will *know* what happens in a mouth or what is going to happen in a mouth in one year, let's say. By doing in vitro, we could simulate the chewing parameters of the patient.

LK: Being that we're in Minnesota and there are so many medical industries around, was this a particularly good environment to do something like that? You said it had sort of research applications for companies, as well.

MP: Yes, 3M is one. The dental section of 3M works with us. They created the Center that we have now, the MDRCBB [Minnesota Dental Research for Biomaterials and Biomechanics].

LK: Right, right.

I'm going to shift gears a little bit here. I wanted to talk a little bit about the culture in the Dental School in the 1970s when you arrived. I was wondering if you found it to be more clinical practice oriented, or research oriented, or a little bit of both.

MP: Both. I remember when I took my training, the degree for teaching, half of my curriculum was courses in the School of Dentistry, and the other half was courses in Education and CLA [College of Liberal Arts]. At that time, the dental class was 150 students and I was the only one non-dental in there.

LK: Oh, wow.

MP: At that time, there were three women dental students. One of them was a nun.

LK: Really?

MP: Yes. I remember very clearly that.

So I was in their class taking certain courses that were required for my training. It was both, but mostly it was clinically oriented.

LK: Was this within the dental assisting program or were you taking classes with the dental students?

MP: No. The dental assisting, at that time, had a special program to train teachers of dental auxiliaries. So it was in a teacher's program. So very few people will make that

effort, and I was one of them. Because I was getting my teacher's degree, then the curriculum has to be with dental courses with the dental students, half of the curriculum.

LK: Ohhh. I see.

The nun that you mentioned, was she training...?

MP: She was from northern Minnesota.

LK: Was she training to teach...?

MP: No, she was a dental student and became a dentist. [She also set up her own practice.]

LK: Oh.

MP: All were dental students to become dentists. There were 150 of them.

LK: Maybe this feeds off of the earlier question I just asked. I was wondering if you could comment at all debates regarding specialization in dentistry versus creating dentists who are able to provide comprehensive care. It seems at a land grant institution, you're trying to have a strong research end of things, but, also, create the dental workforce for the community. I was wondering if you could comment on that at all.

MP: Because I'm not a dentist, so my view would be as an outsider or a patient.

LK: Okay.

MP: I do feel that the practice of dentistry or the specialization of dentistry has to have research involved, so research is needed so we can progress in treating diseases and so forth. But not every dentist can be a researcher. There are certain people who like research and they should be available for that. The other one is the dentist, the general practitioner, sure, of course is needed. The general practitioner can do comprehensive care anywhere. Absolutely. But, also, we need specialists. At least from my point of view, certain areas need a special type who specializes in that. I think all three are needed.

LK: In my research in the Archives, I ran across some newspaper articles about student unrest in the 1970s.

MP: Oh, my god.

LK: [chuckles]

MP: I remember that, yes.

LK: This one article I read was particularly about the Dental School. I know that some of the dental students staged a protest because of exam procedures. I didn't know if there was any of that kind of feeling among the dental assistants or if you saw any of that within the courses that you were taking with the dental students.

MP: No, I don't remember any of that. No, I don't.

I was concentrating on my studies. I graduated in 1972. So that was, for me, very, very heavy. Especially, like I said, I had to have classes with the dental students and I had to take exams and pass just like anybody else. There was no differentiation made between a dental student and myself.

LK: That course work is very difficult from what I've read.

MP: Very difficult. It is, yes.

LK: Could you comment at all on relations between the dental auxiliary students and the dental students, because you were taking classes with the dental students?

MP: Very good relationship. They appreciated... The dentist cannot practice dentistry alone. He needs an assistant to do so, to practice together. Also, they need a dental hygienist and so forth. So the relationship thing is teamwork, a team concept. I never felt anything different, at least anything that I know of.

LK: Great.

When you came into the Dental School and as you continued to teach, Dean Erwin Shaffer was in charge of the school. I was wondering if you could talk at all about maybe any experiences you had with him or his leadership style.

MP: Oh, he was a wonderful man. I remember the first time that he introduced me to the faculty as a new faculty in the dental assistant program. He said, "And here is a beautiful name, Maria Pintado—no offense to the rest of the faculty. But I find it a very beautiful sound." Everybody just laughed. He had such a good sense of humor. He was a wonderful man, just wonderful.

LK: Are there any of his particular accomplishments that you can think of that changed the organization of the Dental School? I guess his contribution to the culture was that he had this positive attitude and all of that.

MP: Yes. It was up to him that we have the new building.

LK: Right, Moos...

MP: The Moos Tower was up to him. That's another big accomplishment. He always would walk around in the clinic seeing the faculty. "How's it going?" He always asked

you, “How are you doing?” or “How is it going?” and so forth. Oh, yes, the school is due to him.

LK: A great environment for you.

Did you spend any time in the older building?

MP: I just had started...one year, I think it was. I can't remember. Some of the courses I took were there.

LK: Was there a lot of hustle with the move over? Was there a lot of chaos?

MP: I don't recall very much of that.

[chuckles]

MP: But it was wonderful to be in the new environment.

LK: State of the art.

MP: Yes.

LK: Donna Aker, I know was in charge of the dental hygiene program. Did you have any interactions with her?

MP: Yes. She was a wonderful person, very supportive. Yes, very encouraging.

LK: I'm hoping to interview her.

MP: Oh, yes. She's just wonderful.

LK: And, then, Helen Tuchner?

MP: Helen Tuchner was another person... She was in the dental assistant program. She was very, very—how could I say this?—positive about her students getting the best of education as a dental assistant and so forth. Yes, she was excellent. She was very good.

LK: As a professor, did she have any research of her own?

MP: No. At least nothing that I know of.

LK: In 1982, with the phasing out of the dental assisting program, do you know how that affected her?

MP: No, I don't know that.

LK: Okay.

[pause]

LK: After Donna Aker came in, there was Kathleen Newell. Was her leadership style very different from Donna Aker's?

MP: Well, I think each one goes with their own personality. Kathy was very interested in the education of the dental hygienists and herself, too, because she, eventually, got her Ph.D., so was making sure that the clinical dental hygienist doesn't get lost.

LK: I forget what she got her Ph.D. in. Do you remember?

MP: I think it was in education. I'm pretty sure it was education.

LK: There was this decision to close the dental assisting program. Could you comment a bit on the reasons for that? I know you said earlier talking about funding... What were the attitudes of the faculty?

MP: I think mostly it was because it was a two-year program. In the University, at that time, they were not having two-year programs any longer. They all had to be four years. Also, the vocational schools and junior colleges were creating dental assisting and dental hygiene programs. So there was budgetary, of course. They felt that it was maybe redundant to have it here, the two year. The University wasn't going to issue two-year degrees. That's it. That was why.

LK: Did a lot of the faculty who had been in the dental assisting program then move to those other programs?

MP: Well, no. They were let go, because most of them were instructors. Helen Tuchner stayed and I was the only one who was transferred.

LK: What role did Helen Tuchner end up playing?

MP: She was the director of the dental assisting program, I think. She was with dental hygiene and had been in dental hygiene until she left. She retired.

LK: In the late 1960s and early 1970s, I saw a lot of push on both a national and state level to create more dental assistants, and dental hygienists, and dentists to meet a growing health need. Could you comment a bit on...?

MP: I vaguely remember, but I wasn't very much involved. But I do know that's why they went to 150 dental students. They had a lot of hygienists and the same thing, a lot of dental assistants. Big classes.

LK: Do you know what the enrollment for the Dental School is today?

MP: Yes. I think it's around ninety-eight students, in the first year.

LK: Oh, wow.

MP: It went down quite a lot.

LK: Yes, dramatically.

Could you comment at all on the financing of dental auxiliary education? Was there a lot of state and federal support? Or do you know if any private foundations donated?

MP: I'm not sure about it. Each one individually, you apply for a scholarship and so forth.

LK: Okay.

MP: Everybody had to pay tuition at the University.

LK: This is kind of as you were coming into the University, so I don't know how much you'll have to comment on this. In 1970 with the reorganization of the health sciences and having the Schools of Nursing and Dentistry, Veterinary Medicine, all of these coming together, did you have any comments on that or do you recall what that change was like?

MP: No, I don't recall that area very well. No.

LK: The one thing that I could think of that kind of relates to all of this was your pursuit of the master's degree in public health. So did you feel like there was a strong collaborative relationship...?

MP: Oh, yes. We had dental hygienists who had master's degrees in dental public health. Like I said, at that time, there was this program for dentists.

LK: Do you know when that program began?

MP: No, I don't. But it doesn't exist any longer, they closed it, but they should open it. I think it's an excellent program.

LK: Do you know what caused the closure of that program?

MP: No, I don't know.

[pause]

LK: These are more administrative questions. I don't know if you had any relationship or anything that you knew about Lyle French and his tenure as senior vice president for the health sciences?

MP: No. I wasn't at that level. Mine is within the school and teaching in the labs.

LK: Okay.

I know that the University of Minnesota is a regional dental school. I was wondering if you could comment at all on maybe relations with schools in North and South Dakota and Wyoming, Wisconsin, and the students coming in from those areas.

MP: I only know by some experience with the students, that's all. It's a wonderful opportunity for the students to be here and for the students from here to have students from other states as well, but I don't know anything about the rest. No, I don't.

LK: I saw that in the 1960s, 1970s, and into the 1980s the dental hygiene program was becoming more and more professional. I was wondering if you could comment on, for example, the decision to require a bachelor's degree with the dental hygiene certification and changing prerequisites in curriculum.

MP: It is the same thing... The University does not have two-year programs any longer. Hygiene, it used to be a two-year program. Because of that, then they had to change to four years. With that, you get a four-year degree and curriculum had to change, courses had to be changed, and so forth. That's all that I know.

LK: Okay.

MP: There are, you know, hygiene programs in junior colleges that are two-years.

LK: Do you know if there is a big difference in trying to get hired as a dental hygienist if you come from a four-year versus a two-year program?

MP: I do not know that.

LK: In 1984, I saw that the University began to require dental hygiene faculty members to have a graduate degree. I'm assuming that was part of promoting this University atmosphere. But I didn't know if there was also an emphasis to build a new kind of research program within dental hygiene.

MP: Yes, they do research in their own areas. Being at the University, yes, they have to. We all have to.

LK: Do you know what that research consists of?

MP: No, I don't teach with them, not with them.

LK: Do you have any comment on Erwin Shaffer stepping down as dean? Do you know anything about his reasons for doing that?

MP: No. But we did miss him a lot, all of us.

LK: Did he stay around and still teach?

MP: Yes, for a little bit. He was wonderful. He used to come quite late, too. It was wonderful to see him.

LK: In 1977, Richard Oliver came in as dean. Do you have any comment on his appointment?

MP: Doctor Oliver brought a lot of, let's say—how can I put it? I'm looking for a specific word—enthusiasm for developing research and so forth and, also, in teaching. Doctor Oliver is the one who actually hired Doctor Douglas, Professor Douglas...

LK: Ohhh.

MP: ...to come here and to create a biomaterials area. That is his doing. Then, when the dental assisting program was closed, he is the one who actually told me that he was going to keep me here, but, in my appointment, he wanted me to come to work with Doctor Douglas, because he's creating research and he's creating education program, also, for it. So I would be a nice match for it. In other words, he found a home for me with Doctor Douglas.

LK: Yes, that's great.

With Doctor Douglas' arrival, did Doctor Douglas help to create the Minnesota Dental Research Center?

MP: Yes. Before that, there was not, at least, to my knowledge, a specific either department or area of biomaterials. They used to teach biomaterials where they had professionals come in like from Australia to teach here and so forth. Then, part of the lecture, but the actual laboratory was started in different disciplines, operative, prosthodontics, and so forth. So the dental students learned in there. But Doctor Oliver said, "We need an area for teaching dental biomaterials, number one, and, number two, to start research in this area. That's what he brought.

LK: Did any other faculty members, aside from you...? You said, Ralph DeLong came in for the research. Was there anyone else?

MP: Doctor DeLong was a student. He went to dental school here. Then, he went to prosthodontic specialty here. In a specialty, they have to do research and they have to write a thesis. Then, he came to talk to Doctor Douglas in here about doing research with

him, so they met, and they just clicked just like that. Their backgrounds, in case you don't know... Doctor Douglas' background is he's a dentist but he's also a materials scientist and a chemist. Doctor DeLong got his Ph.D. in nuclear physics. He's a nuclear physicist.

LK: Wow.

MP: But he wanted to work with people so that's why he chose dentistry. Between dentistry and medicine, he went into dentistry. With that background that these people have is the product that we have, the research, because they put their mind to it.

LK: It's the very powerful influence of those basic sciences.

MP: Yes, exactly.

Then we had other faculty coming in. Doctor Ron Sakaguchi, which also graduated from here. There's a lot of different faculty that have worked with us for a while and they have gone back to their own country, perhaps. Like Doctor Chun-Pin Lin, he came to do a Ph.D. He did a Ph.D. with Doctor Douglas here and he went back to Taiwan. Now, he's the dean of the dental school in Taiwan.

LK: Oh, wow.

MP: It's like that. Different people have come from different countries, especially once the artificial mouth was inaugurated, let's say. It had international reputation. People came from all over and also here in the United States.

LK: When was the artificial mouth developed?

MP: Oh, gosh. It took six or seven years to develop that. Every time, little by little, they will write something and we are continuing the development of it since the 1980s.

LK: Okay.

Earlier you had said that the Center has a strong relationship with 3M.

MP: Yes.

LK: Did they provide funding to begin the Center?

MP: Yes. What has happened is it used to be called the Biomaterials Program, which has teaching and research and it was part of one of the departments of the Dental School for many years. As Douglas' artificial mouth became more prominent worldwide and with publishing the research that we do, then 3M became very interested in consulting with Doctor Douglas about it, the dental part of 3M. Eventually then, he was consulting with them as a scientist with the other chemists over there, with the other scientists.

Then, 3M, let's say, recognition of Doctor Douglas' reputation and input and so forth in the Center, they created the MDRCBB...funding. So every five years, they give so much money to the Center. The Center can use it for faculty, for developing new areas, and so forth. They develop new materials, they send it to us, and we evaluate it here, and then the scientists discuss with them the results and so forth.

LK: Great.

[pause]

LK: I was wondering—perhaps, this is something I could also find on your CV [curriculum vitae]—if you were involved in any professional organizations in research?

MP: Yes.

LK: Do you have any comments on like what those are?

MP: In my case, I can give you the names, like the [Society for] Biomaterials because I worked in biomaterials. The American Association for Dental Research is another one, and so forth. Yes, professional organizations...then we can keep up with what's going on and so forth.

LK: Are the professional organizations you're involved in more research based?

MP: They are, yes, research based.

LK: Are you strictly doing research now or are you still teaching?

MP: I do both, yes. Right now, I'm not getting any younger, you know, so we hired a technician so I can teach and everything. I always had dental students working with me, all these years. Because I teach dental students in their first year, I look at what is their interest and what is the potential, and who would like to, and they talk to me, so I hire them and they work a few hours every day. So all these years, I have dental students working with me and, also, grad students in here and so forth. But I can't put so many hours in that anymore so we hired a technician teaching the students so they can do the work.

LK: Have you had many students whom you've worked with stay on as faculty members?

MP: Yes, some have, but most have gone to private practice or gone to other schools. We get international students, also, a lot.

LK: It sounds from what you said in your own background, that the school very much encourages international study.

MP: Very much so. The University of Minnesota Dental School is incredible. I'm very grateful to the Dental School and the professors, because they have opened the doors. They are very open and so forth and provide opportunities for students everywhere, students from here, students from other...whatever, faculty. It doesn't matter.

LK: From what I've seen, that's an attitude in the Dental School and in the Medical School, and I've seen it in other research areas at the University, as well. So it sounds like the whole University is a great environment.

MP: It's wonderful. The University of Minnesota is fantastic, oh, yes.

LK: Yes.

In the 1970s and 1980s, there were efforts within the University and nationally to admit more minority students. I was wondering if you could comment at all on those changes.

MP: Well, I think, at least I don't remember that I was considered a minority and they did it for me because I was a minority. Not at all. At least, I can't remember that. But what I do see here is they encourage people of other cultures and so forth to get in here, anyone who would like to. So they go the extra mile to see what is needed and so forth. Yes, I've seen an increase in minority students.

LK: Also, in gender, as well... I don't know the exact proportion now but I know that there are a lot more women.

MP: More women, yes. Like I said, when I started in there, it was 150 dental students. There were three women. One of them was a nun and, then, me who was taking that class, but I wasn't a dental student. But I was taking the dental courses with them. I can very clearly remember. It was very nice. They were all so nice. Even the nun, she just interacted like anybody else with all the students. So there was no difference.

LK: Was it intimidating at all when you first came in?

MP: No, not intimidating in terms of *them*, the boys being in there. No. But it was for me overwhelming because of the courses and all, the content. So for me, it was...ooooh.

LK: What was it like coming—maybe you already had experience with this—in having English as your second language and, then, going into the sciences?

MP: A hard time...a *hard* time.

LK: I really admire...

MP: But I was determined to do so. I wanted to do so.

LK: Did you have any family here when you came?

MP: No, I don't. I just had my sponsors. That's all. But everybody who I met became a family and I liked that. That's why I say there are wonderful people in Minnesota, just very caring.

LK: Yes.

I guess going in the other direction with gender... I saw that the first male student was admitted to the dental auxiliary program in 1968, James Jerome. Has there been much of a change in terms of dental auxiliary in the gender realm?

MP: No, not so much. Some, yes. There are men that are admitted to the program, yes. That depends on the individual, you know, because they prefer other professions. As far as I know, they're open to them, to anyone.

LK: I don't have the year for this. I want to say it was the 1980s. The Rajender Consent Decree was filed. Do you have any comments on that?

MP: No.

[pause]

LK: In 1980, I saw a push to possibly create a two-track tenure system at the University where you could get tenure strictly for teaching in clinical practice without a research angle to that. Were you aware of that at all or do you have any comment on that?

MP: No, I don't.

LK: In 1986, I know Richard [P.] Elzay came in as dean. Do you have any comments on his leadership style in comparison to Schaffer and Oliver?

MP: Well, they're completely different time periods...

LK: Right.

MP: ...and budget money. I couldn't compare, but he was a wonderful person, as well, very good.

LK: It was under Elzay that there was that threat to close the Dental School.

MP: Yes.

LK: Can you comment at all about that environment and how he dealt with it?

MP: That's really above mine, you know. I wouldn't have known, but we were very supportive of him.

LK: Do you know what the environment was like at that time?

MP: Everybody was concerned, you know. That's as far as I know.

LK: Were there any lasting implications for that? I know there was some concern about the reputation of the school nationally with that kind of threat in trying to recruit faculty.

MP: Mmmm, nothing that I know of.

[pause]

LK: In 1987, Doctor [Michael] Till came in as dean.

MP: Yes.

LK: I know that he had a big emphasis on education.

MP: Yes.

LK: He had a Ph.D. in education. I was wondering if you saw any changes with his deanship.

MP: Well, everybody refocuses on improving their teaching or get better in their teaching.

LK: Okay.

Do you have any comment on the relationship of the Dental School with the State Legislature?

MP: I would not know.

LK: Are there any major changes in dental education or research that you would want to comment on over the tenure of your career that I maybe missed?

MP: Ohh!

LK: I know the artificial mouth was a big one that you were involved in. Are there any others you want to...?

MP: There is the artificial mouth and, there is also, a special type of technology to measure any changes made in the artificial mouth. So that was developed here also by Doctor DeLong. Right now, we're in the process of developing what is called the Virtual Dental Patient.

LK: Oh!

MP: That is Doctor DeLong's work. We're working on that right now at the moment, because technology changes so much, advances so much. Now, there are intraoral cameras to record everything, not like before. So that has to be developed and that's what he's doing right now.

In my case, because I'm teaching in the course of dental anatomy for the dental students, I developed what is called the tooth explorer computer-based type of laboratory exercises for the dental students to study the morphology of the tooth, because they have to know the morphology of each tooth, form and function. I had to work on that for several years and I have it, so they receive a CD with that now. It helps them too.

LK: With the creation of the biomaterials program, was there a change in the curriculum to have more of an emphasis on that?

MP: Well, what they did is to be up to date, let's say, more up to date, because we have lectures and labs for the students. The students have the basic sciences, you know, the dental students, so that's no problem. But the application of and the understanding of new materials... As a matter of fact manufacturers are developing new materials seems like every month...

LK: Right.

MP: ...and properties and so forth. The dental student, graduating from here, has to be aware of that, because once they're in private practice, they have to select their own. So they have to have a foundation for it. That's the main thing.

LK: Does the biomaterial program have any continuing education? It seems like if there's that much new stuff coming out...

MP: Yes, the faculty have been asked to teach in different programs, yes.

LK: Have you ever done any of the continuing education...

MP: Not in biomaterials, but I have in dental anatomy and dental morphology with Professor [Frederick W.] Noble.

LK: Professor Noble?

MP: Yes, Doctor Fred Noble. He's the one, a very famous dentist.

LK: Is he here at the University?

MP: No, he passed away. I'll show you, he developed these big teeth that we have in here. He handmade those in order to teach the students morphology. Very interesting.

LK: Yes.

Your teaching has focused on anatomy, morphology, and biomaterials?

MP: Right, yes.

LK: Okay

Is there anything else from your career that I've missed or that you wanted to talk about?

MP: No. I think that's all right.

LK: Okay.

MP: Just like I said, I'm very grateful to Minnesota, the State of Minnesota, the University especially. Wherever I go, I have my T-shirt, "University of Minnesota."

LK: [chuckles] You're representing.

MP: Absolutely. I enjoy very much mentoring high school students in the profession of dentistry, making available...this is in research, what can be done, and so forth.

LK: Do you do much community outreach then?

MP: No, they come over here for tours so I give tours in here...

LK: That's cool.

MP: ...continuously, a lot of them. Yes.

LK: I'm sorry. I have one more question that I just thought of. In relation to your pursuit of your public health degree, you had talked a little bit about wanting to spread dental education. Have done a lot of work in that area? I believe you compared it to your experience in Ecuador and wanting to make sure that education was spreading...

MP: Whenever it's possible, we talk about it. We just like converse with students, "Are you interested?" I created a scholarship for dental students, The Maria R. Pintado Scholarship.

LK: Oh!

MP: ...who are going to take the natural four-year dentistry courses and especially some who have interest or have the experience in rural areas, community dentistry.

LK: Oh, yes, because there's such a push to make sure dentists are going out to those areas.

MP: Yes. Just something to make them think about it.

LK: Great.

Did you have any suggestions for other people I should interview that maybe are in the Dental School or that you know that are maybe retired or still in town?

MP: You mean in which area?

LK: All of the Dental School. Anyone.

MP: I think it would be wonderful to interview Doctor Douglas. It's too bad Doctor Douglas is not here, you know.

LK: Yes.

MP: He comes to the Center twice a week. Right now, he's in Florida. He's a snowbird.

LK: [chuckles]

MP: But we still have him come over and help the new director with, especially, the relationship with 3M and so forth. This research center is dental oriented, some in material science, but materials used in dentistry. Dentistry is the main thing. He's a dentist.

Doctor DeLong would be interesting, too. Like I said, he's a scientist, a real scientist.

LK: He's on the faculty here?

MP: He's here on the faculty, yes. He will be retiring not too long from now. So you better get him.

LK: Yes. That's great.

Thank you so much for your time.

MP: I hope this was useful for you.

LK: Yes! For sure. Thank you.

[End of the Interview]

Transcribed by Beverly Hermes

Hermes Transcribing & Research Service
12617 Fairgreen Avenue, St. Paul, Minnesota, 55124
952-953-0730 bhermes1@aol.com