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Interview with Millicent Goldschmidt

Millicent Goldscmidt Ph.D.

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Recommended Citation

Citation Information: Goldscmidt, Millicent Ph.D., "Interview with Millicent Goldschmidt" (2017).

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TEXAS MEDICAL CENTER WOMEN'S HISTORY PROJECT

Millicent Edna Goldschmidt, Ph.D.

Professor Emerita in the School of Dentistry

University of Texas Health Science Center at Houston

Millicent Edna Goldschmidt, Ph.D., came to the Texas Medical Center after an educational journey that included parental objections and a husband's ethical concerns about research.

Once in Houston, her professional journey took her to almost every institution in the Texas Medical Center – from Baylor College of Medicine to The University of Texas M.D. Anderson Cancer Center, UT Medical School (now known as McGovern Medical School at The UT Health Science Center), and the UT Dental Branch. In doing so, she perfected methods of rapid identification of bacteria, prepared a safe laboratory landing spots for the first moon rocks and mentored students in her chosen field of microbiology, all the while partnering with a husband whose career and intellect matched her own and raising two bright children. Now in her tenth decade, Dr. Goldschmidt maintains her professional credentials, speaking to groups of microbiologists and women scientists. She remains a dogged proponent of women scientists and their right to be respected in the workplace.

She was born June 1, 1926 in Erie, Pennsylvania.

Interviewed by Ruth SoRelle, MPH, on October 28, 2016, in her home at 3611 Cloverdale, Houston, Texas.

Transcription by Danielle Bustillos SoRelle, PhD

RS: Ok tell me your full name and spell it so that we can make sure t written materials that I have are correct.

MG: My full name is Millicent Goldschmidt. M-I-L-L-I-C-E-N-T middle name is Edna E-D-N-A last name Goldschmidt G-O-L-D-S-C-H-M-I-D-T

RS: And who were your parents?

MG: My parents were Mr. and Mrs. Jerry Cohen, and I was born in Erie, Pennsylvania. Both of my parents were born in the United States. My father had a track scholarship to college, but World War I came along and he was injured so he never went to college. He fell in love with my mother and started to work. He had a very good mind and liked cross word puzzles and so forth. So I grew up and I went to Girl Scout Camp. I was a Girl Scout. And they had the woman who was the nature counselor had the most wonderful interesting things for people to look for and find. I thought to myself, I am going to be a biologist. This is so much fun and so interesting. So I became very much interested in biology and science at an early age. By the time I was 10, I knew I was going to be a biologist of some kind. I did well in high school. My father had been an athlete as well and he never smoked or drank, so neither my brother nor I ever smoked or

really drank. I will drink occasionally socially, but you know. I went to high school and a couple of my teachers said I should go to college and I was able to get a scholarship so my father said, "Ok you can go to college."

I went to Case Western Reserve and I majored in biology and concentrated sciences like chemistry and so forth. I did research projects and the professors said you should go to graduate school so I went home and I said I could get funds to go to graduate school. My father said, "No way are you going to go to graduate school. Nobody is going to marry a woman with that much education." This was (19)48, so my uncle happened to be visiting. He looked at my father and he said "Even though she'll be a spinster, she'll be able to support herself."

"Well," my father said, "as long as I could support myself and I wasn't going to be living (at) home off of him the rest of my life, or words to that effect." So I could go to graduate school and I got a list of the schools, which were good in microbiology. I had fallen in love with microbiology when I was a junior. I avoided it completely after taking freshman biology because I never thought I could spell all of those names, but I fell in love with it. So I looked for schools, and Wisconsin was listed as the best school in microbiology at that time and then there was Purdue and there was Penn State and so forth. I had also been accepted in Cleveland at

Case Western Reserve, but they didn't have a microbiology department at that time. So I said to my mother, "Wisconsin," and she said, "That is too far away from home. You can't go to Wisconsin. You can't go to California," before I even mentioned UCLA or Stanford, and I said Purdue? She said, "Purdue is okay. It is only in Indiana." I ended up at Purdue (where there were) very few women. The Second World War was still on, so I imagine this is why they took a few more women graduate students. Because the men were still were still fighting. I went to Purdue.

I was there a year and a half when this very nice fellow named Eugene Goldschmidt came to work on his PhD. I was just finishing up my master's degree. So I fell in love and got married and the department was very upset. "You only came to get an MRS and not a PhD."

I said it's much easier to get an MRS than it is to get a PhD, and I am planning to get a PhD. (*laughs*) I was able again to get additional funds and my husband finished a couple weeks before I did. We went off on his postdoc. He had a postdoc back in Cleveland, and I decided this is a good time to start having children, while he's on the postdoc.

Purdue was so upset. "You see she's pregnant. We have trained a housewife. We shouldn't have women graduate students because they never work," and so on and so forth. I was working, and I was working part

time-after his postdoc. We went a couple places, and we ended up at Frederick, Maryland, at the big Army component there that did biological warfare. I had part-time jobs while my kids were in school, I worked.

I should tell you about one of my jobs, which was with George Washington University. At this point, I was pregnant with my daughter, my second child, and we were blowing up bacteria to see whether it was shock waves or what was causing bacteria to be killed. We had pillows. We had very thin slabs of metal, a bomb underneath, (and) bacteria in a pillow with a little parachute. I was there behind sand bags, pregnant with a hard hat on setting off this big explosive. Up in the air would go the pillow and we would take the pillow back to the lab and get out the organisms and take a look at them. So that was one very interesting project that I had there. I had several others but I thought that would be an interesting one to talk about.

Then my husband said that they wanted (he was a microbiologist too), they wanted him... his department was microbial genetics... and they wanted him to build a super bug, a super bacterial filled with all sorts of toxins and stuff that they could use in biological warfare. And he said, "That's not why I'm here." He said, "I want to do basic science on these pathogens because of the protection that the laboratory has."

So we left. We ended up in Austin, Texas. He said, "We are moving to Texas." I thought, "Great heavens, the end of world. It's Texas you know we had been in the east and so on. My husband said, "There's plenty of fossils in Texas." That made me happy. You can see I've picked out every piece of that fossil stone for that fire place. I am a very amateur paleontologist. I took a post doc under the head of the department who was very nice and worked.

Then my husband was offered a job at M.D. Anderson so we moved to Houston. The head of the department, the acting chief of the department at Baylor was Dr. Bob Williams, Robert Williams. Did you know him?

RS: Yeah I interviewed Dr. Williams a couple of times yeah

MG: Wonderful man. I worked part-time for him, and we published quite a few papers. The department had a grant from NASA. They couldn't find a man who was willing to go out to NASA for a year or so. So they figured I'm a microbiologist. "Would I like to go out to NASA?" I said, "Yeah my husband has a tenured position, you know. Sure I'll go out to NASA."

(Addendum: Dr. Goldschmidt said that in retrospect this was another of the extremely important projects she led.)

I became the director of the protocol to plan the lunar receiving laboratory. What kind of biological tests would be set up with the returning

moon rocks. The National Science Foundation also was involved and a few others. They wanted everything kept sterile in case there was something in the rocks that would cause a terrible disease and kill everybody and so forth. We worked in a biological hood system and so forth. So I had a lot of interesting things in....

The early astronauts were not scientists. They wanted to hit golf balls and plant a flag and run around. We had to get a male microbiologist who was a wrestler to come and teach these guys how to aseptically sample to bring back samples from the moon that hadn't been contaminated by where they were walking. Because those outfits (spacesuits they wore) outgassed (which means they gave off gas rather than taking in outside gaseous elements). So we were able to set up the lab, and I had help from scientists and we looked at all sorts of specimens, biological specimens, to see whether they might even harm other bacteria, what they would do to gnotobiotic (germ-free) animals that we would feed some of the stuff to them and so forth.

I came back to Baylor. In the meantime, Bob Williams, who had been acting chair, was trying to get a position for me. I had a research assistant professorship, and he tried to get a position for me on the faculty because we had published together and so forth. The Dean told him he wasn't

going to have a man in a wheel chair being head of the department and he was holding all of these appointments until they got a new man in.

So by the time I came back from NASA, a new chair was in and he did not like women.

And he told me that if I wanted to join the faculty, I would have to get my own salary and a grant to pay my way. So I got together with Bob Williams because I was interested in the projects we had been working on. He said, "I will be Co-PI with you." So I wrote up the grant and I said to him, "How much money should I put down as my salary?" He said, "How much were you making at NASA?" I said, "\$12,000.00 a year." He said, "Well ,put \$12,000.00 down. I don't' think you should take a cut in salary to go on the faculty."

So I put \$12,000.00 down and I turned it in. He (the department chair) read it and he said, "I like it very much." He said, "There is one very bad thing with this. You have listed too much money as your salary."

I looked at him and he said, "Your husband is a tenured professor.

You don't need to make \$12,000.00."

I said, "What does my worth as a scientist have anything to do with how much I am worth making money?"

He looked at me and he pushed the grant back and he said, "Ten thousand dollar or it won't go out with my signature from this department."

So I picked it up and I walked out of his office before I could say anything I would really regret. I said to Bob Williams, "There is absolutely no way I will ever be a faculty member here with that man as chair. "

You know, in addition, he fired the two women professors that there were who weren't tenured and he said "I'm not taking any women graduate students."

So I looked around for a job and M.D. Anderson Hospital in their pathology department had a big grant on rapid methods to detect bacteria, and they hired me for all of \$15,000.00 a year. So I went back and I went in to see the head of the department and I said, "I don't think that I fit very well with you here at Baylor, and Anderson has offered me a position for \$15,000.00 and I've decided to take it." He looked at me and he said, "You're not worth that much."

So away I went to M.D. Anderson on a big grant to look at rapid methods for detecting bacteria. That was actually an area I was interested in pursuing, because when I went out to NASA, there were no rapid methods to detect bacteria. There were test tubes and Petri plates and you had to grow the organisms and isolate them etc. and then identify them by

lengthy methods. I was very happy to see what I could do and that started me on my career in rapid detection methods. The man who had been running the clinical microbiology lab (at Anderson), his wife was unhappy and wanted to go back to Denver. She said to him, "I'm leaving. I'm going back to Denver with the children." So he went back to Denver.

They asked me if in the interim if I would run the microbiology laboratory. I said, "I would be happy to do that in addition to what I am doing." At that time, only the head of nursing and the head of epidemiology were women with any kind of any administrative experience.

So I made some changes when I was running the lab. They were sending the lab assistants up to the floors to get the samples. There are patients running around down the hall with their IV poles. I said these girls can't go up to the floor in their dirty lab coats because who knows what they're spilling that's concentrated microorganisms? So we had lab coats hanging outside for them, and Anderson had the idea that very important people coming should be in fancy rooms like hotel rooms, not hospital rooms, with sofas and curtains and all of this stuff and rugs on the floors. I said to them, "I am on the infectious disease committee." I said, "You have patients on chemotherapy and they are nauseated and they're vomiting on the floor. They're vomiting on the rug. Food gets on the rug, the bacteria

grow on it and they walk through the rug and you are just creating something terrible." I said, "You can't have rugs in those rooms." You know they did not like me. They did not like me because I looked at the charts and everything and I could see that there were some of the older physicians would order the same antibiotics and antimicrobials that they were using, regardless of whether the specimens were resistant or sensitive. So I wrote a little note saying that I hope the results from the laboratory should interest you.

"Well, no woman PhD is going to teach us how to practice medicine.

We want a male MD in there that knows a little bit about microbiology."

So that's I went to the rest of the UT. I was summarily dismissed. They hired a really wonderful fellow who was named Dr. Dieter Gröeschel. You may not have remembered him. Dieter and I got along well. We taught together at the (UT) graduate school. Dieter later moved away and the present one Dr. Jeffrey Tarrand and I are good friends. Both Dieter and Jeffrey said "I want to give you an appointment here at Anderson." So I, even to this day, even though I am retired from the University, I still have a joint appointment at M.D. Anderson, and I am involved over there with them.

Purdue decided that they were going to find distinguished alumni. By that time, Purdue realized that I had been working after all even though I had had children etc. They made me one of their... they picked two people...and they made me one of their first outstanding alumni. When I went back to get that award and also the Ovation Award from the school of science, I took my children with me. My son has a PhD in neuroanatomy, computers and brain function and my daughter is a lawyer and a partner in an accounting firm. So I took my children back, and I said I wanted you just to know that women can have children and still continue on in their science and make a contribution.

I have received several other awards through the years from American Society for Microbiology. One I was particularly proud of was one for mentoring women and outstanding science. Because I mentor women. I think it is so important. Women still to this day have a problem in getting acceptance and having dignity and getting equal salary. So I help on a national level and I am part of the mentoring of both Sigma Xi.. So I have spent my time teaching which is wonderful. I think I have had awards for teaching and I really feel that I have tried to make the world a little better place.

I have never told the people I work for that I figure that my salary is a bonus because I am having so much fun. I was still working until I was 85 because I was having so much fun. I kept getting this pressure from the Dean. He said I can now hire, because I was at that point thinking of that \$15,000.00 going up up up and I was making over \$100,000, which is a nice salary, you know. I am a saver rather than a spender. So the Dean was hinting and hinting. He said, "I can hire two new assistant professors on your salary, so why don't you become Emeritus and you can keep your office." Which I did for quite a few years. I just had to give up my office, and I've got all my books and I am slowly unloading in there and slowly unloading stuff in here. So, pardon my messy house. So that brings us up to date. Do you have any questions?

RS: I do have some questions. You've answered a lot of them. I was wondering how you survive in such a male-dominated society as the Texas Medical Center is?

MG: Well, you know I have been pinched. I remember one time when I was at Anderson going up in the elevator, and this man was breathing down the back of my neck, across, across, up and down. I just got my fist like this and I turned around but it was Dr. (Leon) Dmochowski, who was the head of virology. I looked at him and I said, "Dr. Dmochowski are you

having trouble breathing?" I said, "You really need to go and see somebody." I almost hit.... I almost. I don't know. I guess I just pitied people and I felt that I wanted to get the reputation that I had done my homework. If somebody asked me to do something and if I said yes, I would do it. They knew they could depend on me. I think that's the basis. Women have to prove themselves more than men have to prove themselves. I only rarely, I occasionally thought about salary when I learned that I was so low and the school was doing this wonderful thing about women's salaries and they made a curve. I was so far out of the curve with my experience that they cut me out completely and they didn't consider that. That made me mad. That made me mad. I think that I have tried to get men to understand the dignity that's due to women and the professional respect that's due. That took a long time to get.

I know when I was at the (UT) Dental Branch, the old guys, we suddenly started to have one or two brave women. When I first went to the dental school and the medical school, there were very few women (students). Fortunately, now it's probably half of the class. The few women who had fathers who were professional and wanted to work with them would come. They would say to the few of us women on the faculty, "We have to have your help. We are getting our butts pinched. We are getting

told dirty jokes. It is the professors as well as the students who are doing this."

We women got together and, we started a faculty senate and we complained about the lack of being professional among the male faculty. A few of them were picked to take courses on how to do that. One of the people was a guy who when I was sitting in the office typing. This was before computers, typing. These hands came down my neck and down to go down to my breasts, but I gave him a poke. I said, "What are you doing?" He said "Oh your neck looked so stiff, I thought maybe I'd give you a massage." I said, "I don't care for a massage, thank you." I reported this. I was mad enough because his hands were creeping down to my breasts. So I reported him. He had to be one of the first people to take a course in behavior. Laughs

I don't know. I guess mostly you just do what you want to do. You find your work that's exciting and you just sort of push away the sarcasm. You push away the fact that you are a second class citizen as far as men who are MDs or who are dentists and so forth. They look down on PhDs, who have the same if not more experience.

So I am still in there talking and lecturing. I am still serving on national committees. I have a committee that gives fellowships to PhD

women microbiologists to go to a laboratory or to go visit a meeting or to learn a new technique. I do that here in Texas with the women microbiologists. So I still am keeping my fingers in and I still go to national meetings and so forth. But I've slowed down a little. I was in an automobile accident. A guy came through a red light right into my car, which spun around, and I'm with a walker and a sore back. I am having therapy for that. So my health could be better. I was 90 and I had four birthday parties from several different groups of people that I know and so that was very nice. So do you have more questions for me? **MG:** What took me to the dental school was the fact that Anderson was persuaded by the irate MDs to get rid of me as far as running the labs. The department of pathology split into two different departments -- clinical pathology and anatomical pathology. They both put into the NIH to renew the same grant. They didn't get the grant and Anderson didn't know what to do with me. So they thought they would just wipe their hands. So I looked for a position. I first went to the medical school to work under a man who wanted me to work with animals and the organisms that cause diarrhea and to teach the medical students. So I went to the medical school. I taught the medical students microbiology and I set up labs and taught the labs for the medical students. Then he wanted to hire two of his

cronies, a couple, and he only had one slot. I didn't have tenure so he changed the student's reports on my teaching to indicate I was a terrible teacher. I had already had an award for teaching from the graduate school so I was fired from our medical school. Because he had changed it and convinced the dean to fire me. They had to give me another year or two.

I was looking for something else to do and the dental science institute had a postdoc. I figured I could do rapid methods with oral organisms. There didn't seem to be any from what I could read. So I went to the dental science institute to continue this project. They merged in with the main dental school. I became first an associate professor and then a full professor. But when I joined the dental science institute and I became an associate professor at the dental science institute, I went to the man who was the chairman of the dental school of the microbiology group, and I said I am now on the faculty at the dental sciences institute. I would be very happy to help with anything that you would like to do.

He said, "I'll get back to you." He said to me finally, "You can help in the laboratory and teach the gram stain to our students." I said to him that would be fine. He didn't want me to lecture. He wanted me to be a lab assistant and to teach the dental students to do the gram stain. I said that is a very important thing and I think dental students should need to know it.

So when I said that to him, he said, "We'll let you know when we need you."

Of course, he never called back.

Things got very, very tight at the dental school. They decided to combine the departments. So there we had anatomy, physiology, biochemistry, microbiology, and a couple of other things all merged into one department and only one person could be chair. So there were a lot of chiefs who did all sorts of interfering and everything. The school decided that that was too much. They decided to close the whole department and they shifted us all over to the medical school. So I ended up back at the medical school, teaching virology to the medical students and teaching the medical students how to do the gram stains, which is very important. That's how I got back to the medical school. I had a joint appointment, of course, at Anderson and I was working with some of the dentists that were working with people who had head and neck tumors and so forth and publishing with them and using my lab.

The dental school suddenly realized that to get accreditation, they had to have a microbiology department or a department of biological sciences. They were paying about a million bucks to the medical school for our salaries. So they pulled us back to the dental branch. I have circulated around the medical center, but I have always been able to support my own

work. I had grants and so on and so forth. So that's how I ended up back at the dental branch. Circulating all around but I've been a microbiologist. **RS:** So of all of the things you've worked on what do think is the most important?

MG: Of all of the things I worked what do I think is the most important? I developed a new medium on which only one fungus would appear. Candida albicans. I don't know whether you have any... I thought that was important. I spent, by the way, the summers for 30 years as a visiting professor at Kansas State University, which had an international course in automation and mechanization of microbiology. So I taught rapid methods every year for 30 years for two weeks in the summer. Both a course for students and a course that people came from all over the world to learn techniques. This was food microbiology mostly and cosmetic microbiology. So I think the fact that I was able to be a pioneer to teach rapid methods in food microbiology were important. In fact I wrote... my last reference for them... was a chapter on rapid detection of microorganisms for the Encyclopedia of Food Microbiology. The second edition. I had also written in the first edition. I think the fact that I could be a pioneer in rapid methods because I later started to read on nanotechnology so I had a chapter on the use of nanoparticles in rapid detection and so forth. I pointed the way to

the future and I thought that was important that I had done. So I think some of the research that I did through the years.

In fact, interestingly enough, the research that I did for my master's degree back in the late 40s at Purdue was a project that the professor that I did my master's degree with was penicillin production by the fungus that produces penicillin. I went to graduate school from having had a lot of chemistry and a lot of biology and I thought to myself the organism that produces penicillin grows like snakes in a shake flask. What you would do is take the liquid and measure it and get zones of inhibition and so forth. I thought to myself you need to add surface active agents to this. I remembered some of the unsaturated fatty acids. So I told the professor I was going to get some oleic acid, linoleic, linolenic and see what it did. It so changed the organism that it grew like little yellow pillows. Like little pills, like little tiny pills. That gave so much more surface area. I was afraid that when I first did the assays there was nothing on the plate. I thought I know I added the streak organism. I had so much penicillin that I hadn't diluted it enough to see what was happening. The company that had the grant was so excited because they added these compounds to their pilot tanks and so forth. I had influenced the way that today probably the same that penicillin is produced. I don't know whether anyone ever tried it on any other organism that produce antibiotics or not. But I think that was another thing that I lucked into so to speak from courses I had taken.

RS: So whom do you consider your mentors in your career?

MG: You know that's interesting. My mentor was the woman that I worked on for my PhD. I started with the same man that I started for my master's degree and he was not that happy with women. He kept switching the projects he wanted me to work on. I was trying at that point, I was married and trying to finish a degree so that I wouldn't have to go someplace else to get a PhD. Because I figured this was my golden opportunity. So I have become friends with the fellow I did my master's degree under since I finally got my PhD under someone else. He was unhappy to see me leave him, he was unhappy when I had children, he was unhappy when I got married and he left Purdue and he became the president at the University of Arizona. He had a very nice wife. My granddaughter went to the University of Arizona to get her degree. So I went out and visited her and I thought I'll call him and say hello, which I did. It was very interesting and we became good friends. I have seen him a couple of times since then. He is retired partially. So we became good friends, which is good. The woman with whom I did my PhD became a mentor and a good friend. She died about 10 years ago, which is too bad.

MG: Bob Williams mentored me but he is deceased. I think the man that really mentored me was Dr. Orville Wyss, who was head of the (microbiology) department at UT Austin and offered me a postdoc and said "Come work while your kids are at school." I must have had green hands because while working part-time in Austin, I published about five papers with him. He became a mentor for me and he said, "Dammit, you are a hard working woman." I said, "Why don't you call me a hard working colleague? The fact that I am a woman should be incidental to you that I am a scientist."

He said, "Dammit you're right." He was a big man who had been a wrestler in college and a wonderful microbiologist. Both he and Dr. Williams became presidents for the American Society for Microbiology.

Orville Wyss was very interesting. He didn't take junk from anybody. He decided he wanted a door between his office and the lab, and so he got someone to come with a sledge hammer and started to work and the guy went off and never came back for two days. He (Wyss) picked up the sledge hammer himself and pounded out enough of the wall so that he could get in and out. He said, "These guys should've finished their job and I did it for them."

He said "Don't go outside on the ground under my window because I planted some anthrax there and I wanted to see whether it would form spores." He helped women students. He didn't promote women faculty members but he produced students.

I would like to say that it is a little better today than when I was facing the fact that I was a woman working in a man's area. But this is still going on today because I have served as I mentioned on committees for the American Society for Microbiology and I taught last year in Albany, New York at the New York branch and I always say I want to talk to the women as well as give a lecture everywhere I go. Because I want to impress on women that I am a good example. My husband died in 1980 and I had a kid in graduate school, I had a kid in college, I had a mortgage on the house. Thank God that I had a tenured position. I keep telling women you never know. You need to be able to support yourself. Money is power and it will help you get dignity. My father always gave my mother dignity and love, but I had a couple of uncles who would dole out money for household expenses for my aunts and never really gave them..... They maybe gave them a present at a holiday. They would buy them a washing machine and think that was a wonderful present for a woman. It's a wonderful present

for the house, but it isn't a personal gift to a woman. I think things still need...salaries.

I went to Rice University to a concert last night. I go to the Friends of Music Chamber Music Concerts and we were talking on the way. I said I read some place about how long it was going to take for women's salaries to become the equivalent of men. I mentioned a figure and the fellow who was driving is Dr. Scott Roberts and he is a retired vice president for global operations for Shell, and he and his wife and I are good friends. He said, "According to the Wall Street Journal, it's going to take 172 years for women to get on equal salary with men."

Then he chuckled and I chuckled because we tease each other back and forth about women. But his wife has much great dignity from him. I am glad to see educated men doing more for women.

RS: So how did you and your husband get along with you and your job? **MG**: How did we.... You know, I think my marriage was made in heaven. I was married to a man who was a scientists. He had memory. He could tell you who the first and second author of a paper was, what the abstract said, what the journal was. He was at Anderson and he was at UT and he taught at the University of Houston. Kids sat outside of his classroom and listened to him lecture because his class was filled already. I still hear from

his students. This guy was an absent-minded professor and he didn't remember what pocket he put his paycheck in or what kind of money he spent or when his doctor's appointments were. Those kinds of things were not important. So I paid the bills and everything in the family out of sheer necessity.

He was a wonderful father to the kids. He loved kids. We would go camping. When we moved to Texas we bought a tent. We went out west for the first time and he would plan our trips and so forth. We were in love. We laughed. We held hands. He made wonderful love to me. He read me Shakespeare in bed. We talked...we talked a lot. Our son was a talker. My poor daughter would cringe at the breakfast table. She was not into a lot of noise in the morning from when she was this high. We rarely had arguments. Occasionally you know. But we laughed a lot, we hugged a lot, and we talked a lot. Boy, I miss him. Laughs

RS: I'll bet you do. I'll bet you do.

MG: He took some of the wonderful pictures on the wall, and I took a couple of the pictures on the wall. I know even to this day when I take my little camera, I can hear his voice saying, "Now focus that so that you don't have half and half sky and pictures and so forth." Laughs I wish he was around to talk to. I've taken so many nice trips to lecture. I have slides, will

travel so to speak. I have lectured all over the world and some of it with him.

We were on our way, both of us, to lecture at a castle in Prague in Czechoslovakia, when he got sick on the airplane and in Amsterdam, he had emergency surgery and five days later he died of a heart attack.

We were on our way to go. He had all of his cameras. He had said was taking his disability retirement. He was a diabetic and had had one slight heart attack. So we were on our way. Our son's professor had moved back to Denmark. So my son was in Denmark, finishing up his PhD when my husband died in Amsterdam. My son said, "I'm coming right over." My husband said, "Wait until I feel a little bit better." So my son was on the train from Denmark to Amsterdam the morning my husband died, which was too bad.

I had my husband cremated. The most terrible thing is to sign a piece of paper committing your husband's body to ashes and the airlines SAS airlines allowed my son to use my husband's return ticket. They would never do that today but they did back in 1980. So, I miss my husband. You have to get along with your life. I have great grandchildren now and I have grandchildren. My daughter fortunately lives in Houston and she's just wonderful. My son is married and living in San Diego. I

have a daughter-in-law that I have mentored and she is the vice president for food safety for Jack in the Box. She does their microbiology on food for them. We have one in the family. Do you have some more questions for me?

RS: Yes. I think I have gotten most of them answered. What a wonderful life.

MG: Oh! I have been blessed by God. I feel that I have been blessed.

That I have had a guiding hand in the things that I have done. I'm religious, and I really feel that I have been blessed.

RS: I was laughing because I saw that you were married on April 10th.

MG: Yes

RS: So were we.

MG: Oh that was a wonderful day. It was spring break.

RS: Yeah laughs

MG: We went to Clifty Falls State Park in Southern Indianan along the Ohio River for our honeymoon. We drove down there. Many, many years later I lectured at a small school, which was very close and my son and his wife were living in Cincinnati at the time. They came and picked me up and I took my son out to lunch at Clifty Falls State Park where I had honeymooned. I never in my life thought I would be taking my son to lunch

where I had honeymooned. I picked up a couple fossils from there. I have had a wonderful life and as I say I have been blessed. I have two good kids that were good friends, which is good.

RS: How far apart were they?

MG: A little over My son was born in October of '53 and my daughter was born in July of '56. They were fairly close and they're friends. They weren't when they were young. My son was king of the roust and he was very jealous of ... along came this little girl, who was just as smart as he was. I had two kids that were very, very smart and I had to outsmart them. Being a parent is a very, very hard

RS: The hardest job you'll ever do

MG: It is. Being a parent is a very hard job. I am very glad I had children. I would spend my summers when I was in college as a camp counselor because I liked to work with kids. Believe it or not I was a nature counselor and I was a swimming counselor because I took up swimming. So I taught swimming and I taught nature study in camps and I still hear from a couple of the girls that I tried to mentor. The last (*laughs*) I'll tell you a story. When I started graduate school, the camp that I had been involved with was up in the Adirondacks. They invited me back and I said sure. So I went to my major professor, this was for my master's degree, and I asked where can I

store my books for the summer? He looked at me and he said, "What do you mean, where can you store your books for the summer?" He said, "Summer is when the graduate students are supposed to do all their research."

I said I've taken back my camp counselor job. I said I can't get out of it. I said I've been working really hard.

He said, "Yes you have. I will say that about you. You have been working hard on research. So I am going to let you off the hook this time. But this is the last time you are going to camp when you should be working in graduate school." So he told me where I could store my books.

So here is this fellow who has just come along and he says, "What are you doing?" I said I'm storing my books for the summer thought everybody, like in college, quit in the summer. I didn't realize this. He said...this is what my future husband said to me, "This is when you're supposed to be doing research." He was starting on his PhD and I said I already heard that from our mutual major professor.

So off I went to camp for the last summer. I was a bridesmaid for a gal I had gone to college with. I had registered and when I had got back to Purdue about two days before school was supposed to start, because I stopped home and saw my folks and everything too. Here is this guy

frothing at the mouth saying to me, "I was told I couldn't go on a vacation until you came back because I was told I had to teach you this technique. Now I won't have any vacation and it's all your fault."

So I figured well cross him off the list because there actually was a ratio of about eight fellows for every one woman on campus.

But we got back together again, and he proposed to me Halloween eve in a lightning and thunderstorm. We were on our way to our graduate group at the biology department that had a Halloween party. We were on our way to the Halloween party when it poured and lightninged and thundered and he said, "I am going to have to pull off the road for a while because I can't really see. There is so much thunder and lightning and so much rain." So when he was waiting for the rain to stop, he proposed to me. *Laughs*

I said "Yes." I had a list of what I was looking for in a husband. I knew I wanted somebody that didn't drink a lot. I wanted somebody who was intelligent, who was a good scientist. Somebody I could talk to. Somebody with a sense of humor. He fit all the stuff I had.... Because as I said at Purdue, it was eight men for every woman. I had lots of dates. He fit the bill. So I said yes, and I lived for 31 happy years. Thirty-one years.

RS: That's wonderful

MG: Oh yes, I was very lucky and my children were very lucky too because they had a wonderful father who was interested in them and encouraged them in what they did. Especially my son took up photography like my husband. What was really interesting is my husband smoked a couple packs a day until he read what the Surgeon General said, and he stopped cold turkey. We had ashtrays full of chewing gum instead of cigarettes. I would never buy him cigarettes. I said it's a nasty habit to start with. My kids used part of their allowance and bought candy cigarettes. He would sit and smoke and they would eat their candy cigarettes. When he stopped smoking, they did too. They stopped buying candy cigarettes. Neither of them smoked to this day.

RS: My father did the same thing. He read the Surgeon General's report and he said, "Well I'm not doing that anymore."

MG: Yeah that's exactly it. So you are looking at a happy camper, a loving woman. I felt that I had a lot of prejudice against me as a woman and that I took a lot of crap from men. That men wouldn't take from other men. It's better. It's still going on. I was lucky to be accepted to graduate school and to do well and to continue on.

MG: You've got another good marriage. Happy memories. I finally... this year got rid of my husband's lecture notes and everything. When I would

see his handwriting, it would bother me and I couldn't throw out his years of scholarship. I finally did it this year. I threw out his old papers. I gave some of his books away. I saved some of the papers. I had given stuff already to his students, his books and things.

This is life. You have to get on with it.

MG: I think women are becoming more and more accepted and respected and treated with more dignity. But I started to tell you about going up and lecturing in Albany, New York to the microbiologists and this one woman, I always talk to the women if I can. She said, "I had a job interview. My husband is in the medical school so I am looking for a job until he finishes. I took off my engagement ring and I went on this interview and this man wanted to know if I was engaged, if I was heterosexual, and if I was going to get married. If he was going to hire me, would I sign a statement saying I wouldn't have a child for five years?"

RS: That's illegal

MG: That was last year

RS: Totally illegal

MG: She said, "Needless to say I didn't work for him." I said, "What he did was completely illegal." She said, "I know that." She said, "He knew it, but he would just say he never said it." She said, "I was just horrified at the

questions this guy asked me. Was I heterosexual? Because I was finishing a PhD. He was just wondering if I was looney or if there was something wrong with me." This is still going on.

When I go to national meetings, there is a group which has meetings for women. It's called the status of women in microbiology. It's a committee. They hold a session beforehand and then they hold a reception and so forth. The women still come and they talk at the reception about the treatment they received as far as teaching as far as research is concerned. This is still going on. It is still going on.

I've lectured around, one thing that's really starting to bother me, I have lectured around the state at schools and I see well actually when I went to the microbiology meeting in Boston, and the Boston paper made comments about the fact that adjunct professors were being hired more and more to teach. One of the schools in Boston, one of the Universities, had 52 percent adjunct professors. As I look around the state of Texas and I go and lecture, I see women adjuncts, and they have no health insurance, they have no retirement and if they have to teach in more than one school, they have to drive around from one campus to the other. They don't have an office. It's what I have taken on to try to see what can be done with more and more schools saving money as far as administration is

concerned and hiring the majority of these people are women that are hired as adjuncts. You don't have to give them as much money, you don't have to give them health insurance.

RS: I should bring my daughter and my niece. My niece is at CUNY and she supports herself by being an adjunct.

MG: Maybe she wants to. I know when I worked part time I was on people's grants and it applied to some of my retirement. But these women are looking for full time positions. They're doing adjuncts because that's the only thing they can find. These schools in Texas are not hiring full time faculty members. They're hiring more and more adjuncts in Texas

RS: In Texas and in New York

MG: Right down 59 in that little school the guy was bragging to me about the number of adjuncts he had in his department and I told him off and told him what I thought about it.

RS: It's infuriating and they do not...

MG: Professional societies do not want to get involved in hiring of people at Universities but dammit all, it's the teaching and the way you train and handle students

RS: They don't value teaching

MG: They don't value teaching but what are they there for initially is to teach? I'm on my soap box.

MG: I'm on my soap box. It bothers me for the future. The future of the students that are not really getting to be mentored by faculty or to be taught well by faculty that if they have a question, they can go to somebody's office during office hours. Here you have somebody who has no office.

Who comes and does one class and disappears to go teach someplace else

RS: It's the only way they can live

MG: I value education and it's much harder to really do a good job teaching than it is.... I shouldn't say that.....research. I enjoyed both but I had to prepare more when I taught. I would go to the literature. Especially graduate school.

I remember when I was in graduate school and I took food microbiology we had true and false questions. This was a graduate course. The temperature for pasteurization of milk is X degrees for X minutes. Five true and false questions later it was the flash pasteurization of milk is with a different temperature and a different time. Not what is the value of flash pasteurization and what does it do? Which is what a graduate student should learn. But I have never given true and false questions my whole

life. Some of the kids don't like what I do because they have to think about my questions and they have to write. Boy, they don't know how to spell anymore. You know? Don't talk about spelling.

RS: I'm an editor so

MG: Right.

RS: They can't spell, they don't know how to put together a sentence.

MG: English is very important in writing papers particularly. And in talking. When I taught a graduate class and I had time they had to do a paper and they had to get up and talk about it from notes. Scared to death to talk. That I learned when we took biochemistry in graduate school. We had journal club and it was required. You were allowed a little 3X5 and you could write on both sides of it but that's what you used to describe what you're talking about. You could write a title on the board and draw a couple of things if you wanted. I learned how to talk from a little piece of paper.