ORAL HISTORY INTERVIEW WITH Phyllis Leppert, MD
Duke University Libraries and Archives
Submitted April 20, 2024
Researcher: Gemma Holland

COLLECTION SUMMARY

This collection features an oral history I conducted with Dr. Phyllis Leppert on January 24, 2024, and March 2, 2024 for the Bass Connections Agents of Change oral history project. The 1 hour and 55-minute interview was conducted via Zoom. Our conversations explored Dr. Leppert's transitioning from nursing to medical school, encountering gender-related challenges in male-dominated environments, and navigating a diverse career trajectory spanning clinical practice, research, and academia. The themes of these interviews include gender dynamics in healthcare, mentorship, advocacy for underrepresented groups, and the impact of interdisciplinary collaboration on addressing complex healthcare problems.

This document contains the following:

- Short biography of interviewee (pg. 2)
- Timecoded topic log of the interview recordings (pg. 3-4)
- Transcript of the interview (pg. 5)

The materials we are submitting also include the following separate files:

- Audio files of the interview*
    - Stereo .WAV file of the original interview audio
    - Mono .MP3 mixdown of the original interview audio for access purposes
- Photograph of the interviewee (credit: Phyllis Leppert, MD)
- Scan of a signed consent form

*At the end of the interview recording, we recorded a self-introduction and room tone for use in a production edit of the interview.

BIOGRAPHY

Phyllis C. Leppert, MD is a physician, researcher, and advocate for women's health. She has dedicated her career and life to improving reproductive healthcare outcomes and abortion rights for women of all backgrounds. Dr. Leppert came from a family that “was very concerned about social justice” which impacted the trajectory of her advocacy. She states, “I always had the sense that whatever I did with my life [that] I should be useful and useful to society.”

Dr. Leppert's career in women's health began in nursing and midwifery. “As I got to work with the families, I felt very insecure [because] I thought I didn't have enough knowledge to help them in that area,” she states reflecting on why she decided to go into nurse midwifery and eventually to medical school. In 1973, Dr. Leppert graduated from Duke University School of Medicine. As a medical student, she actively participated in legislative advocacy. While attending Duke University School of Medicine, Leppert's interest grew, and she realized that the health of parents before conception was an important part of both the mother’s and babies’ health. She observed the disparities in access to and outcomes for women's healthcare among mothers and infants of color and states, “I perceive[d] that maternity care in this country [needed] a lot of help, especially among underserved people.”

Her doctorate from Columbia University in 1986 was crucial to her studies on the extracellular matrix of the uterine cervix and its roles during pregnancy and childbirth. During her medical career, her research focused on the role of the cervix during pregnancy/birth and uterine fibroids. She worked as the chief of the National Institute of Child Health and Human Development Reproductive Branch and began the first national Clinical Reproductive Endocrinology Scientist Training Program in conjunction with Duke University. Soon after in 2006, she joined Duke’s faculty.

After retirement, Dr. Leppert continued her advocacy for women’s reproductive health. By co-founding the Phyllis and Mark Leppert Foundation, she established a platform to support research on reproductive health and educate the public on fundamental reproductive sciences. Addressing the alarming rise in maternal death rates in the United States is something that Dr. Leppert is very passionate about. She states that, “our maternal mortality in this country is an absolute scandal” She is a strong advocate of creating a comprehensive maternal healthcare team that includes doctors for high-risk cases and midwives for routine deliveries. Through her advocacy, she is drawing attention to how important having strong postpartum support is to ensure that mothers receive the necessary care at every stage. Throughout her career Dr. Leppert has supported women’s health. “I felt it was important to support pregnant families… I also helped establish the whole idea of prenatal education [and] more personal care for patients…So, I am proud of the fact that a lot of the things I did [were] effective in helping to change the practice of obstetrics in this country.”

INTERVIEW TOPIC LOG (PLeppert.wav)

0:00 Introductions
0:39 Childhood, upbringing, and family's advocacy work
1:44 Influence of advocacy in life and its impact on career path
2:17 Impact of advocacy in high school and college experiences
3:46 Establishment of programs and involvement in promoting nurse-midwifery
7:25 Transition from nursing and midwifery to medical school
10:06 Differences in reproductive health and abortion advocacy between New York and Durham, North Carolina
15:12 Opposition faced during advocacy efforts from legislators and medical faculty
16:48 Lack of collaboration with community organizations during advocacy work
17:09 Continued advocacy for reproductive rights and abortion rights after medical school
20:06 Involvement in advocacy efforts and research during residency and faculty positions
31:46 Leadership role at the National Institute of Child Health and Human Development (NICHD)
32:54 Responsibilities and challenges faced as Chief of the Reproductive Sciences Branch at NICHD
38:10 Research on uterine fibroids and collaboration with Duke University
42:56 Continued involvement in research and advocacy for women's health post-retirement
48:06 Advocacy and research efforts also directed towards men's health
50:37 Accomplishments in promoting family-centered care in obstetrics
56:01 Advice for aspiring healthcare professionals
1:01:20 Vision for the future of reproductive sciences
1:03:00 Reflection on career
1:04:33 Closing remarks and thanks for participating in the oral history project
1:05:00 Closing Interview Tasks
1:06:01 Goodbyes
1:06:11 Introductions
1:07:01 Interest in nurse-midwifery
1:08:03 Explains her decision to pursue nursing school, reflecting on societal expectations for women during that time
1:10:52 Discussion on the societal perceptions of nursing and midwifery
1:11:07 Exploration of the stigma surrounding midwifery and the challenges faced by nurse-midwives
1:12:28 Reflects on how societal attitudes impacted her career and addresses the stigma around midwifery
1:13:36 Duration of work in nurse-midwifery before transitioning to medical school
1:14:29 Discusses how her background in nurse-midwifery facilitated her medical school journey
1:15:08 Reflections on patient care approaches and interactions influenced by nursing education and clinical experience
1:18:09 Shares her experiences transitioning from a predominantly female to a male-dominated environment
1:20:26 Discussion on gender dynamics and sexual innuendos in her medical education

1:21:44 Advocacy efforts for women in healthcare and the challenges faced in addressing gender inequalities
1:26:11 Exploration of role models and influential women in Dr. Leppert's medical school class at Duke University
1:26:29 Outstanding women faculty members at Duke University
1:28:16 Decision to pursue a Ph.D. during her residency and the influence of her research interests on her career trajectory
1:34:05 Elaborates on how her medical and Ph.D. training complement each other
1:36:38 Reflections on the integration of clinical and research aspects in Dr. Leppert's career trajectory
1:39:17 Return to Duke University from NIH and her research focus on uterine fibroids
1:40:21 Status of Professor Emerita and Dr. Leppert's ongoing involvement with Duke University
1:42:08 Elaboration on DREAM team and its mission
1:43:55 Campion Fund's objectives and focus areas
1:47:20 Advice to students exploring careers in healthcare
1:53:24 Enacting change on both large and small scales, emphasizing individual responsibility in activism.
1:53:50 Closing interview tasks and goodbyes

TRANSCRIPTION (PLeppert.wav)

Gemma Holland 0:00
My name is Gemma Holland. The date is January 24, 2024, and I'm interviewing Dr. Phyllis Leppert for the Bass Connections Agents of Change Oral History Project. Okay, so we're gonna go ahead and get started. Dr. Leppert, can you tell us a little bit about your childhood and where you grew up? And maybe what your community was like and if this had an influence on your career path?

Phyllis Leppert 0:39
Sure. Okay, so I was born in Philadelphia, Pennsylvania. I was the oldest daughter. I have a brother [which is my only] other sibling. My father was a clergyman. He was a Methodist minister, and my mother was a schoolteacher. Yes, I think my upbringing and my family did have a tremendous impact on my career and what I did. My parents were very active in civil rights. They worked very hard to overcome or to change the laws in the southern states against Blacks, hangings, and going after Blacks. They worked on the anti-lynching bill, and they also were very open and progressive. So, I had that in my background, and my father was very concerned about social justice.

GH 1:44
So, it seems like advocacy has always played a huge role in your life and seeing familial figures in advocacy. Do you think that in high school or going on into college what are the ways this advocacy that you saw growing up make an impact in the way that you carried yourself in any experiences that you had?

PL 2:17
Well in high school, I always had the sense that whatever I did with my life [that] I should be useful and useful to society. Before I came to Duke Medical School, I worked in New York. I was a public health nurse in Central Harlem, and then I also became a nurse midwife. I practiced nurse midwif[ery] in New York City for about seven years before I came to Duke Medical School. When I was there, I helped establish a nurse-midwifery program at Harlem Hospital. I worked in the clinics there. I was very involved in [this]. At the time, I thought it was an important thing to do, and I didn't think so much of it at the time of being social justice [but] as sort of a feeling of this is what I needed to do to be useful to people. I went to nurse-midwifery school. I got my master's degree from Columbia because I felt I needed more information to help my patients. I perceive[d] that maternity care in this country [needed] a lot of help, especially among underserved people. So, I think that did have a great impact on what I did with my career before I came to medical school.

GH 3:46
Can you elaborate a bit more about the programs you said that you started?

PL 3:53
Well, when I was a nurse midwife, I graduated from Columbia in 1964. I went and did an internship in nurse-midwifery at Kings County Hospital in Brooklyn, which at the time was the poorest area of New York City. We did something like 8,000 deliveries a year, and it was really

crazy and chaotic. The people were very poor. They were Blacks, Hispanics, and a lot of immigrants. I also taught at the Maternity Center Association, which was a public health agency in Manhattan, which had been started by Francis Perkins and a woman named Hazel Corbin. They saw that prenatal care and care of pregnant women was very important, and it was established in 1918. It was called the Maternity Center Association because they started a lot of prenatal care or maternity centers all around the city. When I was there, I was helping to promote nurse-midwifery. They were the first school for nurse midwives in the United States, [and] it was established in 1932. In those days, there weren't very many people who were practicing nurse-midwifery or even had graduated. We felt that that was a very important adjunct to health care for women. I also loved that job because when I was there, I got involved in working with the Boston Health Collective for women, which is the one that started Our Bodies, Ourselves. When I was there, at [the] Maternity Center Association, I had the privilege of working with that organization in Boston and being an editor/advisor or commentary person, for the publication [of] the book, *Our Bodies, Ourselves*. So that was very important.

When I worked at Columbia, I became a faculty member at Columbia and the maternity program for the master's degree program, which was [for] nurse-midwifery. I started the nurse-midwifery program at Columbia Presbyterian Medical Center and then helped start the program at Harlem Hospital. It was a service, [and] it was not a teaching facility. It was a teaching facility, but it was start[ed] as a service. I would work in clinics. I remember working in the clinic[s] at Harlem Hospital when the big blackout happened in the United States. The whole Northeastern grid shut down because there was a problem with the Niagara Falls connection. It was in the United States and Canada, so there was a huge blackout. Everybody was afraid to leave and go out into the streets of New York City. So, we all slept overnight in the hospital, the patients, myself, and everybody else. It was a very interesting experience because at about two a.m. the lights came on. I really got to know the people who were our patients very well, and I was very drawn to them, their problems, and felt I wanted to help them overcome those things.

GH 7:25
You said that you started in nursing and midwifery. How did you choose to go to medical school after?

PL 7:39
Okay, here's the story. I was working in New York City, and I had a personal experience, which was somewhat of a tragedy because a man that I love[d] very much died of lung cancer. That was when I was in my late 20s, what was I going to do with my life after that? So, I decided I wanted to go to medical school. Now to back up a little bit. I graduated from high school in 1956. In 1956, women did not go to medical school. This was not accepted [and] very few schools accepted women if hardly any, and the schools that I aspire[d] to [go to] would take no woman. So, that's why I went into nursing and nurse-midwifery. I decided then, why not go to medical school? So, I went back to school at Columbia because I had been out of school for 10 years. I had to redo some courses, [like] organic chemistry and calculus. I was very fortunate because I heard of Duke through a friend of mine, who was an obstetrician-gynecologist at Columbia. He had graduated from Duke. He said to me, "Look at Duke, it's a very good school." So, I applied to all these medical schools in the northeast, Harvard, Yale, [and] Columbia. I applied to Duke, and I got an interview right away. They came up to New York City and

interviewed me at Columbia. It was a very interesting interview, and I really liked what Duke had to offer. So, I got a letter from them saying that they had admitted me in early acceptance. I wasn't sure what to do. I was thinking, I should probably write to these other schools and say, "Well, I got into Duke, what are you going to offer me?" Then, I got a letter from Duke, saying that they had offered me a four-year full tuition scholarship to do medical school, which is the Mary Duke Biddle Scholarship. I sat there and said, “There's no question, I'm going to go to Duke.” So, that's how I got to Duke Medical School.

GH 10:06
Oh, keep going, you can go ahead.

PL 10:11
So, I was in [the] class of 1974.

GH 10:16
Coming from New York [and] Columbia University and then coming to Durham, North Carolina, did you see distinct differences in reproductive health and abortion advocacy that [were] different from New York versus Durham, North Carolina?

PL 10:41
In those days, Durham was very different than it is now. It was smaller, for one thing, the airport was smaller. It was still coming out of all the changes that had to do with desegregation. When I got there, it was sort of a shock. I mean, I had never actually lived below the Mason-Dixon Line, so I didn't know what to expect. I was really amazed when I got there. When I first got [to North Carolina], abortion was illegal. There were abortionists that would come through the town every so often. People would then end up in the Duke ER because they were very sick from these illegal abortionists.

I also was really shocked at the fact that there still was a lot of what I would call de facto segregation. Here's an interesting story because one of my classmates at Duke, who is a radiologist, Collins Baber. He and I had gone to Columbia together [and] were in the same organic chemistry lab, and we were kind of friendly. We both were very interested in Duke and were excited that we were going there. So, the first time I ate in the Duke cafeteria, we ate together and that caused a real storm. [There] were people who came up to me and said, “Oh, no, why are you eating with him?” and he had friends who said the same thing. I mean, it was really incredible. And that was a very different experience [for] me [since] I had not seen [anything like] that at all.

In those days, there wasn't a hospital. There wasn't the county hospital [like] Durham County. [There] was Duke, [and it] was somewhat integrated, but not completely. Most of the medical care that Black women had was at Lincoln Center. It was not at the [same] quality of Duke by any means. So those things really hit me kind of hard.

The abortion story is another thing because that disturbed me a lot. We did see a lot of patients who had problems in [inaudible] from illegal abortions, and they were very sick. So, I went and talked to a colleague of mine [named] Martin Schwartz. He finished Duke and ended up being an

obstetrician-gynecologist at Kaiser Permanente in Portland, Oregon. He and I [met when] he was in Philadelphia, Pennsylvania. He and I decided we were going to go advocate for women in this regard. We decided we would talk to every single person in the North Carolina legislature. We got the names of the legislators, and we went to talk to every single person [and] drove all over the state and talked about why we felt abortion should be legal. Women were dying, [and] they weren't getting good care. We gave them all the statistics. We also pointed out that it was a very hard decision for women. It wasn't just something that women took lightly. And we pushed very hard for that. I don't remember how long it took us to do it. It was over a period of almost a year that [took] us to interview every single person in the legislature of North Carolina. And it was interesting because most legislators the men were very interested. They were respectful, [and] they listened to us. Some of them were convinced that we were right, others not so much. Some of [them] made comments about why [we were] coming from up the road to tell [them] what to do in North Carolina. There was a little of that. But the law changed, and we were very happy that that happened. Other people were advocating for it, but that was something that the two of us did that I remember very distinctly.

GH 15:12
Other than hearing feedback from the legislators that you were talking to, did you have any opposition from Duke Medical students during that time or the Durham community about what you were doing?

PL 15:31
No, that's interesting. Not really, my medical school class was very diverse, and [had] people from all over the country. We didn't get any negative feedback from them. I don't think we got too much negative feedback from the faculty. Except I will say that the Department of OB-GYN at the time was very conservative. There were [several] residents who were not as supportive of women as they might have been. So, they were not all that happy, but they never stopped us from doing it [and] from talking to people. So, it was interesting because some faculty did support what we were doing, mostly pediatric faculty and some people who were interested in public health. There was a tiny group of [the] faculty who were interested in that. There still was not a family practice division or department at the time, it was just sort of getting started when I was there. But we did find some support from faculty. If we had negative comments, we weren't going to ignore it. [We would] just keep going.

GH 16:48
Did you happen to collaborate with anyone outside the medical field, like any community organizations that happened to share the same ideological views as you guys during this time?

PL 17:09
It was interesting because we had some contact with [the] community, but the community at that time was not very interested in talking to people from Duke. The Duke Medical School was perceived as— the whole university was perceived as a plantation. There were very few interactions between Duke and the community at that time. There wasn't anything official or formal at all other than some contact [with] community members that was informal. There was no agency that I remember at the time [that] was concerned about that issue there. I think there were people who were, but they weren't together in any particular organization. So, it was a very

different environment. I have to tell you [that] people really stayed within their own little niche then. There was very little advocacy among anybody in medicine at that time that I can remember, and this is true, not just at Duke, but other medical schools at the time. Everybody was interested in getting their degree. And then I don't remember any faculty, particularly outside of the pediatric faculty [and] Sam Katz, who were aware and interested in community issues, unfortunately. It was a very different time. I mean, this was in the 1970s. I do remember, there was one person who was in the pediatric department [and] a fellow who went up to Greensboro to march with the people who were concerned about civil rights. It was during a time when there was a bunch of Ku Klux Klan people that came to Greensboro, and he was shot and killed. People were very scared at the time, and it wasn't anything that people mentioned, let alone the community organizing you know.

[crosstalk]

GH 19:42
So, your advocacy for reproductive rights and abortion rights continued after being a medical student. What did that look like once you've finished medical school?

PL 20:06
Well, I did my residency in pediatrics at Duke. Then I went to Yale in obstetrics and gynecology and that was a very busy department at the time that I was there. Connecticut was interesting [since it] had this Comstock Law, the whole United States did. The tradition that we all knew about at Yale was that the chairman of the department, many years before, had been sued and criminally indicted for giving out birth control because [which] was against the Comstock Law. So, Yale was a very liberal place in terms of OB-GYN care. At the time, it was a large maternal-fetal medicine division, [and] the faculty were very well known. So many women came from all over the country with abnormal fetuses and [with] many problems. We were doing a lot of abortions. We did a lot of prostaglandin inductions of mid-trimester abortions, fetal anomalies, and for women who were really sick, like [those] who had cancer, needed to be treated. So, it was a very active community. So, I was very involved in that, and I was very involved in speaking out for women's health.

I was the second woman who was admitted into that residency. They wanted me to come a year before, but I decided to finish my Duke pediatric residency. So, I didn't go for a year. They accepted another woman and then I came in as a second woman. But being a woman was not so much of a challenge, what was really a challenge to me was [that] I was the first non-Yale Medical School graduate to be accepted to that residency program. As I remember that caused a lot of problems because [people were] always like, “You don't know the Yale way.” Because everything was very cut and dry in those days and all the medical centers were very provincial.

So, I found that very interesting. My advocacy continued because, after [I] finish[ed] my residency, I went back to Columbia. I taught in the department of OB-GYN because of my background. I became the attending physician for a very small but growing nurse-midwifery clinic. We took care of a lot of teenagers at the time. [It] meant more than just advocating for abortion because we had to advocate for nutrition support. It was the beginning of people being interested in federally funded nutrition programs. And that was interesting because we found that

many of the families that got support, [like] the pregnant women [who] got support didn't go [directly] to the pregnant women. The money was used by others in the family and there was a tradition among many families, especially people from Hispanic backgrounds, that the father got fed first, then the boys, and then if there was food left over, it would go to the pregnant young girl. So, it was an interesting experience, and I got involved in some of the issues with that program and extended Medicaid for women who needed prenatal care. And I was there at Columbia for almost seven years, no longer. Then I applied for a job in Rochester, New York.

I went to Rochester, New York, and I was on the faculty of the University of Rochester. I was also the chairman of OB-GYN at Rochester General Hospital, which is a large general hospital in the north part of Rochester. While I was there, we applied for a grant with the Robert Wood Johnson Foundation, which was interested in finding out about health care for the underserved and what could be done to help. At first, when I applied, people said, “Oh, there's no problem in Rochester, New York.” Well, we proved them wrong because there was a large group of women who were Black or Hispanic [that] had no access to care. A lot of it had to do with the fact that the bus routes didn't go directly to the hospital. So, we had to go into the center of the town and had to go out to the hospital to get prenatal care. And that would take like, maybe four hours, it was ridiculous. So, [some] women sometimes didn't get prenatal care. There were a lot of women who were not covered by Medicare or Medicaid. Medicare [was] for older women who had GYN problems [and] Medicaid [was] for women in their reproductive years. We wrote the whole thing up and it got published and people were interested in how [to] improve the care of women and it opened people's eyes to the fact that even in affluent communities in the United States there [were] a lot of serious problems.

The other thing that happened in Rochester, [was that] there was a large anti-abortion movement that started. It was interesting because there was there were some, protestant pastors. I think they were Lutheran, [but] I don't remember exactly. They may have been Baptist. They started this program that was anti-abortion, and they were difficult. They would show up at the hospital when we might have to induc[e] somebody at say 16 to 18 weeks pregnant, who would rupture membranes. They would say, "Oh, you're doing an abortion" and all this stuff. They picketed our hospital one Good Friday. They went to a church and then they all showed up and marched around the hospital with a banner. I'll never forget it because they had a banner, [that] had a picture of a fetus being crucified, which turned a lot of us off. Fortunately, the hospital security guards got them off campus before the people from the newspaper [came]. But it set a tone of wait a minute, this is not so good.

And there was a situation, where there was an anti-abortionist, who was crossing the border from Canada to the United States every year or so and shooting people. [He] was a sniper and shooting people who he knew did abortions through Planned Parenthood. And there was a man on the faculty at University of Rochester. He [worked] at hospital, but this guy shot at him in his house in the suburbs, and fortunately, it was in Pittsburgh, but he was not killed. But then two years later, after I had become chairman at State University in New York at Buffalo. There was a man who was shot in Amherst, his name was [Barnett Abba] Slepian, and he was killed by this sniper. He was a man who had a large private practice of OB-GYN. He took care of a lot of cancer patients, but he did abortions at Planned Parenthood, and he was shot. And that was devastating to the community. What was even more devastating to faculty members of the university was

that this particular guy [the shooter] had a website. He had pictures of all the people he knew [performed] abortions. Whenever anybody was shot or killed anywhere in the United States, there was a big X that was written over their picture and sort of saying: [He's] coming up for someone else next. It was a very scary time. It was scary for the people in my department. There was a woman who worked in Planned Parenthood at the time, who was a young woman, and [she] was an OB-GYN. She had finished her residency a couple of years beforehand, and she had children. And she said, "I can't do this anymore. I have to protect my family. I'm really frightened." There was a lot of backlash from other people in the medical community because the OB-GYN staff was scared. They came to our grand rounds, and I will never forget it because it was [only] a psychiatrist [who] stood up and castigated the department [for] not getting out there and doing more abortions. I had to go to this guy and say, "Listen, people are very frightened, [and] you should not say these things to them and make them feel so guilty." But it was a horrible time. Of course, abortion did not change in New York, it remain[ed] legal, but it was a very fraught situation at the time. There were a lot of difficult decisions to be made. You know, that hold people together and keep people doing procedures that we felt were important. When I was at the University of Buffalo, that was the Slepian story. We also had a situation where someone on the board of directors was upset because [we were] doing abortions because [we were] inducing somebody with ruptured membranes [at] 16 weeks. So, I had to do a lot of explaining to people why this was the case.

After that, things quieted down a little bit. I ended up going to the NIH [National Institutes of Health] and becoming the Chief of the Reproductive Sciences Branch at the NICHD [National Institute of Child Health and Human Development]. I've [have] another story because that was when the human embryonic stem cells were just beginning to come out. I had to deal with that because that was in the purview of my branch. But that's another story [that] does impact reproductive science and reproductive health.

GH 31:46
At the NICHD, you said?

PL 31:52
Yeah. National Institute of Child Health and Human Development.

GH 31:58
So, what motivated you to take on this leadership role that you were offered?

PL 32:09
I was offered the position, and the interesting thing was [that] I wasn't that welcome after a while in Buffalo. So that was the other part of this story, and I knew that there were people in Buffalo who were not pleased.

GH 32:32
With what you guys were doing?

PL 32:34
Right. Exactly, exactly. Whatever, that's past history.

GH 32:42
At the NICHD, can you elaborate more on what you did there?

[crosstalk]

PL 32:54
Okay, I was the chief of the reproductive sciences branch. At the time, it was the largest extramural branch in the institute, and we funded [and] encouraged grants from everyone all over the world that had to do with reproductive sciences. This was basic science [like] spermatogenesis, oogenesis, fertilization, implantation, [and] all of that. There was another branch that had to do with contraception and things of that nature. But we were basic science, and I loved it.

It was a very good experience. I have a PhD from Columbia [which] was very helpful to me in that job. At the time, many of the scientists in the world were starting to work with human embryonic stem cells and that was highly controversial. It was during the Bush Administration [and] there was this policy that was established that [stated]: we could fund grants, but only grants that were using a certain number of cell lines. I had to pay attention and my staff had to pay attention to the grants that came in and mak[e] sure that they were following all the guidelines. When we had to defend these grants, which is the second area of review at NIH, when you go before a group of people who have been elected, some of them have been appointed by the presidents. They're both scientists and laypeople. There were [several] laypeople who used to challenge me, and I remember one particular person saying, "Well, why are you funding? All these immoral research projects that Dr. Leppert?" And I said, "Well, first of all, we're not funding them. We are recommending them to be funded. But secondly, we're following very carefully, all the mandates from Congress." So, it was a politically kind of difficult time because of that, but I now think people understand how important that knowledge [is] to understand many things about not just reproduction, but all of medical health and physiology.

I had one situation where there was a woman scientist from the University of California, and she was very famous [because] of [her] wonderful work on implementation and how it occurs [at a] basic level. She wanted to do some particularly important work, but at that time, you couldn't do some of that work at any institution that was funded by NIH. So, we helped her find a place in the United States, where she could do this [and] where they had no funding from NIH at all [It[happened to be an IVF clinic in Las Vegas, Nevada. She went there, and she completed the study. She was studying L-selectin and how it impacts implantation. Her work made the cover of Science magazine. So, we felt very pleased about that. But it was a struggle to try to explain to people the importance of basic science. [Specifically,] that basic science [was] not political. I mean, it's how we discovered things. The political part is how you utilize the knowledge. It's not perse right or immoral, I believe [it is] because people are curious, [and] they want to know how things work. And we did that kind of thing to help our grantees.

I also when I was there, got permission to work in an extramural lab in the afternoons, and I worked with Jim Segars, who's now at John Hopkins. I said to him, “We really [should] have [a] study [on] uterine fibroids because no one knows anything about them, and they are very

ubiquitous." At the time, no one knew how ubiquitous and how common they were or what caused them. They [are] tumors of the extracellular matrix [inaudible], and we felt that was very important because it's a terrible health disparity in this country and around the world that women of color have a severe disease burden from uterine fibroids. So, I'm proud of the fact that we started to work on uterine fibroids when I was at NIH.

GH 38:10
So, you said that you work with uterine fibroids. I see that you came back to Duke University to do [research]. Is that connected in any sort of way?

PL 38:31
Yes. I was recruited to Duke to establish a presence for research in the Department of OB-GYN and an office of research. So, I was appointed the Vice President for Research, and this was [in] 2006, I believe, somewhere like that, you have to look it up. I got an office established, which would encourage research grants and research grant applications. I also started working in the lab, and my colleague in this work ha[s] been Friederike Jayes. She's still at Duke, and she's important and very involved in that. Liping Feng did some work with us, a lot of fellows and medical students work with us on these projects. We continued our work by looking at uterine fibroids and what happens to them, [and] how they might be treated. Our lab was the first one to show that there isn't a large accumulation of extracellular matrix. Along with Jim Segars, we show that mechanical transduction, or the effect of force on the cells, causes an accumulation of collagen in the fibroid because they're fibroid tumors. And then we started this work, it was at least 10 years ago now, or longer than that. [I think] 2007 [is when] we began to look at how you could treat uterine fibroids.

So, we began to study a collagenase from histolyticum, Clostridium histolytica. This collagenase has two isoforms. I suppose [compared] to mammalian collagenases, this collagenase chews up every single bond in the collagen molecule. So, it essentially makes it become gelatin and then it can be phagocytized and eliminated. So, we felt that would be an important treatment for uterine fibroids. Friederike Jayes [is] continu[es] this work on collagenase to determine if we could destroy or degrade the collagens. We've got a lot of papers that came out from that Duke lab on [the] whole subject, and we have several patents. I'm still working with them [about] seeing how we can promote this and do more studies. We did a clinical study, [a] phase one clinical study with John Hopkins [and] Jim Segars. We're working with the Duke people to see how we can advance this.

We also had a liaison with Darlene Taylor at an NCCU, and that's also an active ongoing project. And that project has to do with a nanoparticle that can be injected with a collagenase in it into the uterine fibroids, and released so that this procedure could be done in outpatient clinics or [underserved areas]. One place would be Africa because they [cannot] use fancy equipment like laparoscopes and all [of those] sort of thing[s]. It's a serious problem for women there. If they could have a procedure where it could be locally injected into the fibroid to help it shrink without having to go to the OR and everything, it would be a great thing forward. So that's the research we're working on now, and I still do that at Duke.

GH 42:56

Okay. So, I know that you're retired now. How has your dedication to women's health continued in your retirement?

PL 43:18
First of all, I continue to work with the Duke people, Friederike, Darlene and others, on this whole problem of uterine fibroids. I'm not in the lab now, but I can certainly advocate, critique research and, encourage people. I also am involved with the Dream Team at Duke. I go online for the meetings. I think of it as advocacy and promoting the students and the work of the people who are doing it. I attend the seminars online with the Department of OB-GYN, especially the reproductive biology seminars, and sometimes the seminars in the National Institutes of Health and Human Sciences, environmental health sciences rather. So, I'm still working on things.

I formed a foundation called the Campion Fund. It's [called] the Phyllis and Mark Leppert Foundation for fertility research. But we do business, the Campion Fund and we chose the name the Campion Fund because the Campion flower is a very old flower. It's about 30,000 years old, and it has an X chromosome and a Y chromosome. It's a diecious flower and then there's a male plant and a female plant and plant biologists use this to study, sex determination and things of that nature. But that's why we chose that name. So, we are very active in promoting and supporting fundamental research and reproductive sciences. We also support junior scientists through the Triangle Consortium of Reproductive Biology, where young people from all over North Carolina universit[ies] come to present their research, once a year. We give some awards to the students, fellows, or young new researchers who've done the best work. We also do a lot of blogs and so forth to help educate the public. I think that's important for them to understand what this is all about and how important healthcare and reproductive healthcare is.

And one of the things we're doing this year, which I'm really excited about. We're having a meeting, [and] we're co-sponsoring it [with] Frontier Nursing University in Kentucky, which is a program that promotes [and teaches] nurse midwives. They're well-known all over the country, and we're going to have a meeting on maternal mortality here in the United States. It's going to be a meeting not just to raise awareness of the problem, but to talk about programs where maternal mortality has been reduced, how important those programs are, and what works. In other words, trying to encourage people to fund programs like that, especially the federal government, because our maternal mortality in this country is an absolute scandal. It's a scandal for two reasons. One, because Black mortality is three times more than Whites, but the Whites' maternal mortality is also exceedingly high. It's almost 170 per 100,000 people for Blacks. And about 34 for Whites. Well, that compared to the Netherlands, which is almost zero, to Japan, which is like four, to [the] United Kingdom, which is four. All these other developing countries are very low, and I think that's terrible. I also know that Duke has worked within their system to alleviate maternal mortality, and they've had some good success. They've reduced maternal mortality nicely. But we have to face this [as a] country. It's not a good thing. It tells me that we don't care for women in this country when we have that kind of statistic. So, I'm still fighting on all kinds of in all kinds of arenas for women's health, and men's health too.

GH 48:06
Oh, can you talk about what you do for men's health a bit?

PL 48:19
For what?

GH 48:21
For men's health? You said, you advocate for—

PL 48:19
Oh, okay. Yeah, we've had meetings on the effect of air pollution on health and air pollution affects men's health terribly. It has [a] great impact on sperm count. The other thing that is interesting about sperm count [is that it] seems to [correlate] with other health issues that men have. If a man has a low sperm count, they tend to have a problem with cardiovascular disease and so on. Probably because if you tie it into air pollution, which we've had a lot of meetings on and supported, [it's] important. We've had several meetings on just andrology in general spermatogenesis things of that nature. We try to alternate and be effective [in] reproductive health in general. Here's the thing, reproductive health is very important to the survival of our species here on Earth. If we don't have healthy reproduction, where are we going? You know, nowhere. That's important, and we haven't done a whole lot to support young families and to support pregnant women and husbands. We haven't done enough to educate people that even before pregnancy is a time to worry about your reproductive health because your health before pregnancy impacts spermatogenesis and oogenesis. In general, [it impacts] how you're going to respond to pregnancy. So, it [is] impact[ed] by climate change and air pollution, the whole society. So that's what we're trying to accomplish to raise awareness among the public. And it's interesting, you know, some people are getting it, and some aren't. [laughter] We have a website, and that's where we put our blogs.

GH 50:21
So, we've talked a lot about your entire career, is there a specific accomplishment or project that we haven't talked about that you're most proud of?

PL 50:37
Well, one thing we didn't talk about. This occurred after I graduated as an OB-GYN, I felt it was important to support pregnant families. When I started, especially at Columbia University, things were very different than they are now. I mean, it's like night and day. Husbands were not allowed with their wives. There wasn't a sense of famil[y], there wasn't a sense of understanding of the sociological impact and the cultural impacts of pregnancy. In my career, one of the things I tried to do was change that.

And I know when I was at Columbia, I [helped change] the rule about husbands in cesarean section rooms. That happened because I told the chairman of OB anesthesia at Columbia at the time, who was a friend [and] was against it. He said, "Oh, this is terrible. They should not be in there. It's an OR, bla bla bla." And we kept saying, the family wants to hold the baby and see the baby. It's a birth experience, like any birth experience. They didn't see it that way. So, fathers were not allowed. [However,] he said to me, "You know, Phyllis, if you find one family from your practice, who you know [that] refuses to come to Columbia and have the baby because of our rule, I'll change the rule" So I waited. Then I found a family, where she was a pediatrician, and he was an anesthesiologist. She had had a private c-section, and they very much wanted to

be together. I had to tell them; we can't do [that] it's not allowed. So, they [went] somewhere else. And, they had their baby at Albert Einstein. So, I told [the chairman] this, and he said, "Okay, you proved me wrong"

I also helped establish the whole idea of prenatal education [and] more personal care for patients. When I started out, everybody came in and got an epidural and everybody [received] the same routine, and everybody had the same amount of Pitocin because they have to slow labor down. So, I am proud of the fact that a lot of the things I did [were] effective in helping to change the practice of obstetrics in this country. It was a subtle thing, and it was always sort of demonstrating how things could be different and change. Also, support[ing] nurse midwives, I did that throughout my whole career. In every place, I worked, I supported them. I supported the program called Community Based Nurse Midwifery Practice, which then evolved into Frontier Nursing University. This is a neat program where they graduate about 500 midwives a year. There are people from all over the United States and other countries, but mostly the United States and underserved [areas], mostly rural areas. The whole concept is that if you train people in their communities, then they will stay there and take care of the patients. So, the program is a combination of distance learning and working at the campus. [Once] they are admitted, they come to the campus for a basic four courses. Then, they go back into their community, and they do online learning, and they work with a preceptor that's from the university, The university [has] preceptors all over the country [who] they train them, bring them in, and work within the local community during their clinical experience. This program is almost 30 years old now. It graduates students [who] always pass their boards, and they pass at a higher score than just the average. It was interesting because when it first started, people were against that. They said, "This is not going to work. They're not going to train people. Well, they're not going to be good clinicians." But it's turned out that is not true, and it's a great model for how to change a problem where access has been a problem. So that is something that I got involved in, and I actively help people to be preceptors or students in these programs. For a little while there was a program similar to that at SUNY Stony Brook, but I don't know that that's functioning so much now. But this was early in the days when nurse-midwifery needed to expand, and it wasn't so that's something that I did.

GH 56:01
Wow. So now as a retired doctor and someone [who] has worked in reproductive advocacy, is there any advice that you would want to give out to someone aspiring to enter the healthcare field or like the reproductive healthcare field and research?

PL 56:24
I think you have to have a passion for it. One of the things [is that] I [have] always loved what I was doing, I love my patients, [and] I really felt committed to it. And that's important to love it. Then, I think the other thing to do is you [have] to think about yourself, and you can't work all the time [because] you have to have other avenues. So, I always sang in choirs, and I did things to kind of help my mental health. The last thing I'd say is never, never give up. Whatever your goals are, never never give up. Okay, and for scientists, I always tell them to follow where the science is taking without fear, so that's what I would tell them.

GH 57:17

That's really good advice. I think that a lot of people today. I wouldn't say we're not passionate, but I would say that with social media and stuff it's hard for us to see really what we're passionate about and if we're really interested in things. So, I think that was great advice.

PL 57:47
You can't sustain it. You know, here's a statistic. Most of the obstetrician-gynecologists now, and many are women, maybe five/six years out quit the field. I learned the other day that that's happening to nurse-midwives, too. Well, you know, it's hard work. There's no other specialty that is so demanding [since] you're on call all the time. When I was with my laboring patients, I sat with him the whole time and that's exhausting. So, you've got to find other things to do, but you got to believe in it. You've got to be passionate about it because if you're not, you're gonna get burnout. I think people are getting burnout, and I know, it's hard because there are so many rules and regulations now. I don't really know how people are doing it. Now, to tell you the truth, we didn't have all this situation. [It] was interesting because a lot of this stuff came and started in the 1990s.

And I don't know whether you read this article recently out of Harvard, it was in the [New] England Journal of Medicine. [It was] about the monetization of medicine and [explained how] the businesspeople came in and took over [set the new standard of] how you're [supposed] to do things. [Like,] you're only going to have 20 minutes per patient. So, that is another reason why I think young people get burnt out. How can you [practice medicine] when half time you have to spend looking at the electronic chart writing up things and not getting to know the patients and feel good about them and know them as people? So, I think right now, it's very hard for people to find a passion. You know, it's easy to make it just a job. And it's unfortunate the way we set up the way we practice medicine [in this] country. [It] didn't happen in the 1990s, when all this stuff about healthcare reform came [about]. But healthcare reform was about the money. It wasn't about patient care and that's something people have to understand. If it was about patient care, people would be very upset about our maternal mortality rate in this country, but they're not. What do you hear about? You hear about how much it costs all the time. So, there's a lot of work we have to do to educate the public [and] our elected representatives about what's happening. Sometimes getting your passion back has to do with that and being an advocate because then you become passionate about it. But never ever give up and love what you do.

GH 1:01:00
So, as our interview starts to wind down, how do you envision reproductive sciences in the future? What does that look like or what do you think that will look like in the future?

PL 1:01:20
Oh, my goodness. It's hard to predict the future but what I hope is that everyone has access to really good reproductive health, everywhere in the world. That's what we [have] to work on. I think we have to also continue to study reproductive science. So, we understand more about why we have [the] problems that we do. [For instance,] why do we have preeclampsia? Well, that answer comes from basic science. What's going on when people have infertility, all of those issues? So, we have to concentrate on that. I'm hoping that in the future, we will focus on families, on patients, and not so much on the bottom line. And that would be my vision for the future [because] I can't predict what will happen, no one can. You go where the science [is] and

where the facts are leading you. I hope that we really can build a great group of providers, physicians, nurse-midwives, nurses, [and] nurse practitioners, who will be passionate about patient care.

GH 1:02:45
All right, as we conclude the interview, is there anything else that you'd like to share or highlight that we haven't spoken about today?

PL 1:03:00
I don't know. It's a little hard to say [laughter]. I think one thing [that] is important [is that] when I was doing my work, I just did what I had to do because I believed in it. I didn't think so much about a legacy or anything, it was just that this [was] the work I had to do to be useful. Sometimes that's a good approach. I also tried to be faithful to what I believe in and not pay attention too much to the attitude of my peers and what they thought and to be ethical to what I consider to be the facts of the matter.

GH 1:03:52
All right. Thank you so much. I've enjoyed talking and listening about your career and everything. This has been really inspiring to me. Just listening—

PL 1:04:10
Well good, that's great!

GH 1:04:12
[laughter] Yeah, it's been really inspiring. I just wanted to thank you so much for your time, and for contributing to our oral history project. I do have to do a couple of things that I forgot to do in the beginning [laughter]. So, I just need to state an introduction, and I'll just edit it into the beginning.

PL 1:04:33
Yeah, yeah. Well, that's okay, because we have a little bit of a trauma getting online [laughter].

GH 1:04:41
N I just need you to give like a production-style introduction of yourself. So, for instance, for me, I would say, My name is Gemma Holland, and I'm a current student at Duke University.

PL 1:05:00
My name is Phyllis Leppert, and I am Professor Emeritus of OB-GYN at Duke University.

GH 1:05:11
Thank you and then we just need to get 10 seconds of silence.

[silence]

Okay, I think that's good [laughter]. All right. Thank you. Thank you so much [crosstalk]

PL 1:05:45
Good luck. Oh, you have a good rest of your day [laughter], and way out here, it's now sunny. It was raining before so that's good. Okay.

GH 1:05:54
Thank you. You're welcome. Thank you and I'll be sure to email you the consent form.

PL 1:06:01
Great. All right. Thank you, Gemma. Bye bye.

GH 1:06:04
Bye.

[Break]

GH 1:06:11
Hi, my name is Gemma Holland. The date is March 2, 2024. I'm interviewing Dr. Phyllis Leppert for the Agents of Change Oral History Project. So, Dr. Leppert last time, we talked a lot about how you became interested in attending medical school. We didn't get to contextualize your prior career history in nursing and as a nurse midwife, so can you please enlighten us and tell us what pushed you [towards] your initial interest in nurse-midwifery?

PL 1:07:01
I got interested in nurse-midwifery because I was working in New York City as a public health nurse. I was assigned to Central Harlem, and I worked in a mother-child clinic, which had to do with baby checks and things like that. As I got to work with the families, I felt very insecure [because] I thought I didn't have enough knowledge to help them in that area. So, I had heard about the program at Columbia, which was [the] school that I graduated from, and they had a master's degree program in nurse-midwifery. At that time, [it] was a very new concept, although it had been around in certain places since around 1932, [like] in the hills of Kentucky, and in the inner city [of] New York. So, I applied for that program, and my impetus was that I wanted to learn more to help my patients. So that's how I got into that program.

GH 1:08:03
And what pushed you to go into nursing in the first place, like nursing school for instance?

PL 1:08:11
Well, you have to remember this was [when] I was in school in the [late]. So, it was very different for women then. Women were really cut out from a lot of things and very few medical schools were taking women. In fact, the culture didn't encourage women to do very much except get married and have children. I was in that era, when there was a lot of pressure not to do things like go to law school, medical school, or anything like that. Even if I had wanted to, it would have been really hard to get into a school. So, that's the reason I got interested in nursing. One of my roommates was taking a biology course, and she had trouble with it. She was dissecting a cat,

or I can't remember, and I helped her with it. I really got interested. I was an English major. I really got interested in science, and I was taking chemistry and this kind of thing. So, I thought, well, I would like to do that. I looked around at school[s] of nursing. I found the catalog about Colombia. In those days, Colombia was one of the few schools that demanded college before you went into nursing. The other thing that attracted me to Columbia was that the curriculum, which was three years at that time, for the most part [was] taught by physicians, or they were comparable to what was taught in medical school. Like our anatomy courses were taught by physicians who would [teach] anatomy courses to the medical students. So that was the impetus for my applying to Columbia, and I did get in. Then at Columbia, my classmates had either graduated from college, they had gone to college, and they were very bright women. I really think if it was another era, many of us would have gone right into medicine. [There were] really bright girls that were members of my class. The medical school was all male at that time, and not only was all male, [but] it was [also] mostly white men who graduated from Harvard, Princeton, and Yale. In those days, that's how you got into medical school. It was a very different society than what we have now. So, there wasn't a lot of opportunity open to me at that time. So that was really how I got into nursing. It was more of a society thing. It's hard to visualize that now, but that's the way it was.

GH 1:10:52
Was there a stigma about nurses being women during that time or a stigma around nurses during that time?

PL 1:11:07
There [were] very little openings for women to do anything. There was nursing and teaching. And some of my classmates in high school and college went into teaching. But [those] were the only professions open to women. If you're a woman, you were expected to be a nurse, there was no stigma per se, to be a nurse. Men came into nursing much later. It was more like in the 80s and 90s. So now it's a profession. There's a lot of diversity in nursing, just like there is in medicine. In those days, everything was very hierarchical. And I can't say that there was stigma about nursing, there was a lot of stigma[s] about nurse-midwifery because when I started, there were very few nurse midwives in this country. There were only like six universities or six places that taught nurses midwives. And there was a stigma because people in their minds thought of granny midwives, women who weren't very well educated and that kind of thing. There was a little cartoon of someone called Sarah Gamp, who was a midwife and carried a bottle of alcohol around. Midwifery was very stigmatized in those days for many reasons.

GH 1:12:28
Do you think that stigma around midwifery, held you back in sort of a way or did you face any other challenges?

PL 1:12:46
I didn't really let it bother me. I was very dedicated to helping women and New York was pretty open to it. I did an internship in midwifery at Kings County Hospital, in Brooklyn. In those days, there were like, 8000 deliveries a year there, so it was so busy. The doctors really welcomed us [and] there was no problem about that at all. I was working in an area where there's a real need. I did personally feel that there were a number of people who [said some things]. I remember going

to parties and people were [asking], what do [I] do? Then they'd laugh and [tell me] that's crazy. So, there was that kind of thing at a time.

GH 1:13:36
You did nurse-midwifery for how long again before you proceeded on to medical school?

PL 1:13:46
Well, I graduated in 1964 from my midwifery program, and I worked mostly in New York City at various positions. As I mentioned to you before I joined the faculty at Columbia, I helped establish service at Harlem Hospital, which was attached to Columbia at the time. I think it still is, [but] I don't know. It was just something that I felt I had to do. So, that was why. I don't know, there was something more to your question that you need that you want to you're trying to get at.

GH 1:14:29
Oh, yeah. I said, How many years were you practicing?

PL 1:14:35
Oh yeah, how many years did I work? Well, I graduated in 64. They went to medical school in 79. So that's how long?

GH 1:14:46
I remember you saying that you went back to take classes before you went into medical school. So once you were in medical school, how do you think having the background of being a nurse-midwife helped you in your medical school journey?

PL 1:15:08
Well, you know, it was interesting [since] it made my clinical experience a lot easier. I think that for some people I was familiar with patient care, hospitals, and hospital hierarchies. So, I could just start to get in and learn without having to worry about learning how to interact with patients, how to deal with very sick patients, and deal with patients who were dying. I think that I approached patients differently because I had been socialized as a nurse. I don't know if I told you this. The approach for instance, in medicine, medical education, and nursing education at the time, how you interacted with patients was very different. Also, nursing put a lot of emphasis on your own feelings. For instance, the first patient I took care of when I was a nursing student who died was a very traumatic experience because it happened to be a young woman who was 24 or something with lupus, and she was dying. It was very traumatic, and the faculty were very supportive of me, [like asking] how did [I] feel about it. [They encouraged me to] talk about it [and] there was a lot of discussion about my own reactions to the death, and how we could help patients who were dying. In medical school at that time, they almost thought of death as not a victory. So there was a lot of non-discussion about it. When patients would die, doctors would just sort of leave and let everything be taken over by the nurses. So, I think that [how] I approached patients was very different because of being socialized as a nurse. And nurses spend a lot of time with patients. So, it was easier for me to talk to patients.

It was really funny. When I was at the VA, I had a surgical rotation [where] I was the only woman on the rotation. The [vetrens at] that time used to say, “Well, what's this little lady doing

here?" It was interesting because there was one episode where the physician in charge of the board was trying to talk this patient into having surgery, I can't remember what the surgery was, it was some kind of orthopedic problem. He looked at everybody, and he sa[id], "I'm not going to do this surgery unless that lady over that tells me it would be important." Of course, I [told him] you need the surgery, and everything was fine after that. There was this interesting interaction between patients and the physicians, and I think that because I had been a nurse, it was easier for me to relate to patients initially than some of my colleagues.

GH 1:18:09
And what was it like going from a mostly female-dominated atmosphere to medical school where it was more male-dominated?

PL 1:18:24
Well, that was very hard. There were a lot of attitudes at all medical schools at that time, not just Duke, which made it very difficult for women. I think there were a lot of sexual innuendos that didn't that people didn't understand at the time. For instance, I remember there were issues about call rooms [since] there weren't places for women to sleep. Either we slept on a couch somewhere or we got into a call room and [guys] were there. It was a little awkward. There were a lot of jokes, sometimes in class, which I thought [was] inappropriate. And there was one [man], I still have his book. One of the men in anatomy at Duke had written [an anatomy] textbook. He decided that he needed to jazz it up. [In] the section on skin anatomy, he had pictures made of pinups [which] would point out different positions and different aspects of anatomy. And it was really a scandal at the time. Everybody said this [was] inappropriate. He thought it was great. He gave a copy to me, [and] he autographed [it]: "To my favorite nurse." [At the time,] I was a second-year medical student. So, it was interesting because there was a woman and endocrinologist in the country who was very angry. And she approached the publisher of this book and [told them to] take it off the market. She had enough women behind her that they did take it off the market. But I think this man, this faculty member, he thought that would be the way to go. I mean, I don't think he thought it through well.

[silence]

I think we're frozen are we frozen here a bit?

GH 1:20:26
Your audio is good, but it seems like your video is frozen.

PL 1:20:33
Yeah, right. Okay. I don't know what to do about that.
[recording paused]

GH 1:20:45
Okay, we're recording again. It [is] really interesting that you said how men during that time made sexual innuendos and didn't understand what they were doing was wrong.

PL 1:21:15
You know, that was the way they did things.

GH 1:21:20
During that time, were there a lot of like, women in healthcare-related fields that kind of were advocating for changes in the administrative policies about the way men regarded women in these atmospheres and fields?

PL 1:21:44
There was a lot of [advocacy, but] it took time because somebody has talked about how change is made. And they said you need a critical mass. The critical mass that they told us at the time, it was like when 20% of a population becomes the minority population, in this case, women, that change begins to happen. So, I started out the time when it was like maybe 5%, or 10%, very low percentages. So, we had our concerns. What we had to do was find faculty members who really cared about us. As time went on and there were more women, it was easier to make change[s] and to point out things that were not good.

I'll give you an example of how we dealt with things early on. When I was at Duke, my first rotation was [in] medicine. And I was [assigned] the Rankin Ward, which at that time was the research ward. When we would round in the morning, the chief resident would always say, "Phyllis, you're gonna get coffee." So, I dutifully went off and got coffee because I wasn't going to make a big stink about it, you had to pick your battles. Everything went like that until Wendell Ross, who was a faculty member at Duke [and] a hematologist came up to be the rounder. When the chief resident started to [instruct me] to go get coffee. Wendell Ross said, "No, I'm going to get coffee." He went and that was the end of that. [It] was the last time anybody [told] me go get coffee. So many faculty members were supportive at that time, which was the part of the faculty members that I remember and that was good. But other things took a lot longer to change.

When I was a faculty, junior faculty at Columbia, for reasons that are lost to me now, I was appointed to represent OB-GYN on something that they started called a Staff Committee. [It] was a committee at the medical center, supposedly, of junior faculty. They wanted to get our input, finally, on things [which] was a[n] unusual step because, at that time, everything was extremely hierarchical. So, when I got to the meeting, and all the other members of other departments were all men [and] I was elected chairman, which for reasons that I find interesting. One of the first things we [did] was talk about our salaries. When talking about it, we found out that everybody at the junior faculty level had different types of salaries. All the women were low, and all the men were all over the place. And that was [because] the faculty were interviewed by the chairman, and the chairman would decide what [your] salary was going to be and the benefits. There was no standardized protocol for bringing new people in. So, what we did was decide that as the Staff Committee, we were going to go and talk to all our junior faculty colleagues and [on] an anonymous basis get their salaries. We didn't have their names, [but] we had their sex, race, and their salaries. We published [this information] and that was one of the first times that people realized that there was a lot of inequity in how people were paid. And so that was one of [how] we could sort of start getting the conversation going in and start making change. So little by little things began to change in the 1980s [and] 1990s as more people from

diverse backgrounds came into the field. We had started getting Blacks into the field and then in the late [19]80s and 90s and that was hard for them, [but] things turned around very rapidly after that, which was wonderful. And when you had more people, you could get a lot more change done.

GH 1:26:11
Definitely. When you were at Duke were there women that were in higher in your medical school class—

PL 1:26:25
Looked up too?

GH 1:26:27
Yes, exactly.

PL 1:26:29
Well, there weren't many women faculty when I was there, but there were some who were really outstanding. There were a number in pediatrics that were excellent. In psychiatry, there was one woman who was trained in Europe. She was trained as a surgeon, and she came here and couldn't get a position in anything except psychiatry. She was a wonderful psychiatrist, and she was a very great role model for all of us. I had a lot of conversations with her, and it really helped me in my career and figuring out what to do. There was another person in psychiatry who did most of his work at Butner. [At] the Butner prison, he was the psychiatrist there and was from Spain. His wife was a midwife who worked for one of the practices in Durham, and they were very supportive of me and very helpful. I looked up to them, and he was a very wonderful man. He gave me a lot of very good advice at the time. And some of it was kind of interesting, I remember when I went to apply for residency [he told me] to sit down [and] put your light under a bushel a little bit. In other words, what he was trying to tell me [to not] be a know-it-all [but] try to demonstrate what you know, what you do, and your actions. Don't try to be a flamer because at that time, that would have been a disaster, you had to in a kind of go with a little bit and keep working from within.

GH 1:28:16
I know that after medical school you did your residency. But we also know that you pursued a PhD. Can you kind of fill in where that came in your timeline?

PL 1:28:36
Well, when I was at Yale, as a resident, I got very interested in the question of how it is that parturition gets established. I was specifically interested in the uterine cervix and how it dilated in labor because it is a fascinating story. At that time, the idea was that it was just like a sphincter and the contractions pushed it open. I kept saying that can't be possible because the cervix is primarily [an] extracellular matrix of particularly collagen, and collagen isn't going to behave that way. So, I got interested in the question of what is the whole biochemical cascade that changes the cervix from being a very firm organ to a very soft organ at the onset of labor. It's a very complicated situation with many chemical pathways, but at that time, we didn't know it. So, I had a choice of either staying at Yale or [going to Columbia]. I got a call from the chairman of

pediatrics at Columbia, and he said [to] come down and [visit] us. I did and when I was there, I met a very interesting woman by the name of Ines Mandl, who was a connective tissue biochemist. She was a specialist in elastin and collagen. She said, "Oh, if you come here, you can work in my lab." She was a very interesting lady, [and] she was one of the first women to get a PhD in the field. She was very well known [as] the editor of an international journal called Connective Tissue Review, and she was a great mentor. So, I thought this [was] a great opportunity. I could study and work with somebody really fantastic. I started working in her lab, [and] the chairman of OB-GYN was very supportive. He gave me lab space [that] was right near her lab. So, I started working with her.

Then [an] opportunity came up [where] there were positions for PhD students, and she supported [several] PhD students. The pathology department was the department that I got my PhD in, so we started talking about it. She said, "Well, why don't you think about getting a PhD because it will give you another it'll give you a lot of clout within the scientific field and you can really use that to to do what you want to do." So I talked to the chairman of our department about and he thought it was a great idea. We arrang[ed] where I worked in my PhD part-time and kept on working in the lab. So that was the impetus of how I got started on doing my PhD. I haven't regretted it because it has given me an entree into the basic science fields, which was hard in those days for women.

I'll tell you a funny story. Remember, I told you already when I first started my PhD colleagues loved it. They thought [it was] very important and great, and I had a lot of support from them. But my clinical colleagues weren't so sure, and they kept calling it a hobby. For a long time, the[ir response was] that's Phyllis' hobby, and we know all there is to know about this cervix. We don't need to know anything more blah, blah. I kept publishing things that showed that the cervix became softer, throughout pregnancy by a very complicated cascade of changes in metabolism and in the biochemistry of what was happening with the matrix and its interaction with cells and hormones. When I was on the faculty at SUNY Buffalo, I was still getting this it's a hobby kind of thing. Then my colleagues in New York and OB-GYN clinicians were going to go to Europe. In those days, medical people always went [on] seminar trips, which was kind of a vacation because they went to some seminars to write it off. That's my take on it. We don't do that anymore. But at any rate, they decided to go to Scandinavia, and they contacted with Karolinska Institute to ask them to give a seminar. It happened that the woman who was chairman of OB-GYN then was a woman I knew because she was also working on the cervix. So she [gave] a lecture and organize[d] a seminar for [them]. So, they went to this seminar at the Karolinska, and she cited my work a lot. [My colleagues] came back from the trip, and they didn't know what to say to me. They said, "Oh, my goodness, she talked about your work." I just laughed because I knew her from my PhD kind of experiences. And that was the end of the[m] attacking me as having just [a] hobby, [and] they began to respect my research [more]. So, the PhD did give me a certain amount of ability to do my research [which] at the time was very difficult for a woman, and especially somebody in OB-GYN. I don't regret it. I don't know if that helps you or not but that's why I did it.

GH 1:34:05
How do you think that getting your Ph.D., being a physician, and doing your research— How do you think those things complement each other and fuel your journey to where you are today?

PL 1:34:25
I think about that a lot because medicine [and] education in medicine is very different than education in Ph.D. In medicine, you have to learn a lot of things as a basis for how you're going to react to patients and what you're trying to do in medicine. The problems you solve and sort of synthesizing the symptoms the patients have or how they're responding in labor and comparing it with the normal physiology and [figuring out if] there [is] some abnormality [t]here. In science at the Ph.D. level, you're asking very specific questions about why this happen[s] at a very basic level. The two approaches are a little different. Medicine has always tried to synthesize things since the scientist is kind of breaking [them] down into small pieces so then you could put [the pieces] together and make a story. So, I don't regret having the experience in both the lab and in getting my Ph.D. and learning from [my] Ph.D., as well as learning for MDs, because it's a different approach [that] is very important, and I liked it a lot. I also had a long talk with my Ph.D. colleagues when I had to decide what to do after I got my Ph.D. because I had the opportunity to go to NIH [and] do a postdoc there, which probably would have taken me on a different path. One of the women scientists, Ph.D. scientists said to me, "You know, Phyllis, you really should stay in clinical or keep your clinical contacts because scientists need to know what the clinical people think about certain problems, and you will be able to notice what problems are there, and then bring your Ph.D. skills to the force so that you could solve it." So, she convinced me to stay within the medical field, and I thought that was interesting [inaudible].

GH 1:36:38
I was gonna say, it sort of bridged the two aspects of your life, the clinical/medical side and also your research side, and bridge[d] the gap between those two, which is really—

PL 1:36:55
For me, it did. I'm very pleased that I did my MD first and then my Ph.D. I know [that] there are a lot of MD-PhD programs, and I think they produce excellent people. In some ways, it's harder because the students do medicine for a while, and then they're not quite gelled in medicine then they go back to the lab. [So,] they [are in the] lab for a long time, then they come back and do their clinical work. I think it's harder for them to synthesize things a little bit because they don't [go] into as much depth. I mean, I had four years of medical school, five years of residency, and a fellowship that would have been, 9 to 10 years of being exposed to medicine before I went to get my Ph.D. Then my Ph.D. took a long time. I got myself immersed in that, and so I [could] really concentrate on all the learning that both fields could give me; whereas, I didn't have to go back and forth so I was more gelled. In a sense, that's what I want to say because I under[stand] both disciplines very well, [which] was good for me, [and] it was easy to then synthesize it and put it together.

When I was at Duke, I took a lot of my third-year courses with the MD-PhD students, I took immunology with them, and I know them very well. I look at their careers and very few of them have done science, but they've mostly done a lot of clinical things. Many of them became Chancellor's that kind of stuff. It was a different kind of ballgame. One of my classmates really did make a difference in sciences at Washington University, and he had gotten his Ph.D. first and then medicine and he had a great lab and did a lot of good things. But some of the MD-PhD

students in my class ended up practicing medicine. They did some clinical research, but they never really went back to the labs, which I found interesting.

GH 1:39:17
I know you came back to Duke to do research. Did you have your Ph.D. before you came back to Duke?

PL 1:39:29
I came to Duke from [the] NIH, where I was the chief of the reproductive sciences branch there. I was recruited to help establish a vigorous research program in the Department, and so I had my Ph.D. by that time.

GH 1:39:51
And that's your work with the uterine fibroids, I believe?

PL 1:39:56
I started working with fibroids in Rochester and then and NIH. Then, I brought that with me when I came back to Duke.

GH 1:40:06
So I know that you have the status of a Professor Emerita, can you kind of explain what that means and how you were established with that status?

PL 1:40:21
Well, your chairman has to put you up for it. So, my chairman decide[d] when it came time for me to retire to put my name [in] as emeritus and there's a whole rigmarole. You go through a committee and that kind of thing [where] they ask a lot of questions about what you've contributed not only to science but to Duke and so on.

What it means to me though is that I get to keep my relationship with Duke, and I feel very strongly that I need to interact with faculty and students. So, I go to many of the seminars. There [are] the labs within the OB-GYN department as a research seminar and so I try to go to those through Zoom. I go back every year to the Research Triangle Annual Meeting, [which is a] consortium session for reproductive technologies annual meeting and I meet with my colleagues, I'm still working on some projects on uterine fibroids with Friederike Jayes and the department, and Darlene Taylor, who's adjunct, but she's teaching chemistry at NCCU. I have meetings with them [regularly]. I also interface with the DREAM [Developing Research Excellence in Anesthesia Management] team out of OB-GYN that's very interested in birth justice and fighting for the rights of women and that kind of thing. So, I feel very obligated as an emeritus professor to continue my relationship with the Duke people.

GH 1:42:02
Can you talk a little bit more about the DREAM team and what it is?

PL 1:42:08

Okay yeah, I can. The [people] you really need to talk [are] Jonas Swartz and Beverly Gray because they started it. Its membership is not just OB-GYN, it's family medicine, nursing, anesthesiologists are on it, [and] social workers. Right now, we've been talking about a lot of the issues in the Roe vs. Wade issues that have come up after the Dobbs situation. And we've been talking about the situation in Alabama with the IVF. So, it's an attempt to really focus on medical issues that have social impacts. As a result of that, we have reached out to politicians and legislators in North Carolina and other states to see how we can help them understand the issues from the point of view of medicine. Basically, I think that explains it. The acronym is wait I forget it's DREAM, something about— I'll have to send you what the acronym is. It's about diversity and making diversity real actually. But it's like all acronyms, [you] remember the acronym and you don't remember what it stands for [laughter]. But it was started by Beverly Gray and Jonas Swartz, and it's an excellent group. If you're not a member, you should be.

GH 1:43:55
Your Campion Fund focuses more on research, right? Okay, I was [going to] ask you if there's any link between your Campion Fund and the DREAM team.

PL 1:44:11
Well, we have three missions [at] the Campion Fund. One is to support junior investigators in the field because they need support. It's not a field that's very well-funded. As a result of that, many young people decide not to go into it. Secondly, we support scientific meetings or evidence-based meetings for the scientific community. We support what we call fundamental research because fundamental research is basic research. It can be public health research, epidemiology, or it can be translational, but really good research and everything. And because we're small, we can't cover reproduction of the board all the time. We have biannual focuses, and [for] the past year or so we've been focusing on parturition, pregnancy, and gestation.

We had a big meeting last year and NIEHS [The National Institute of Environmental Health Sciences] just focus[ed] on the basic science of all of this. But this year, we're going to have a meeting with a very important nurse-midwifery school in Kentucky called Frontier Nursing University. And we're going to focus on evidence-based knowledge that supports ways to reduce maternal mortality in this country because as you know, we have terrible maternal mortality. We have very high rates of obviously preterm birth and everything else under the sun. But maternal mortality is an embarrassment and a scandal in this country. So, our meeting is going to be focused not just on the fact that it's a problem. But we're going to focus on ways in which we can work together to overcome the problem. I mean, working together is important because no one group is going to solve it. I mean, it involves physicians, nurses, and midwives. It involves patient advocates, community health workers, and the whole system of funding for health care, all the insurance programs and Medicaid, and the government. They're just so many areas in which we have to concentrate on ways in which we can work together to reduce it. For instance, a lot of women are falling through the cracks because hospitals are being taken over by businesspeople who just want to make a lot of money. So, they cut back on a lot of things that are important for pregnant women. I mean, there's one case in Boston, it's now in the newspapers, which is really terrible because they decided to cut back on some of the supplies they needed or equipment they needed. So, we're trying to focus on areas of the country or people who have really tried to set up multidisciplinary [programs] that are working very hard to

change that because it's one thing to talk about the issue, [but] it's another thing to work on changing it. So, we're going to focus on that.

GH 1:47:20
As we wind down our interview, we've talked a lot about you going from nursing to getting your MD to getting your Ph.D. and having just such a diverse educational journey. What advice would you offer to students who are unsure about their exact career path and just want to get into medicine or the healthcare field? What advice would you offer to them to explore different options?

PL 1:47:58
You know, that's a very good question. It's very hard because in a profession such as ours, healthcare, it's very difficult for people to move on a career trajectory, in a forward way, I think it's a little easier than it was. But if you go into the nursing pathway, then certain things are open to you. If you go in the medical pathway, there are certain other things open to you. So, I think it's difficult for young people.

One [piece of] advice [that] people gave me, and I think [is] good for anybody is if you're interested in healthcare, you should find somebody that you can ask to follow or to shadow and find out what it is that they do. It's important to find people [at the] undergraduate level who are interested in pre-medical programs and pre-nursing programs and all that kind of thing and sort of try it out. When I was in high school, I worked in a hospital, which was very good. I worked as a nurse's aide, and it gave me an idea of what healthcare was all about.

It's hard right now because there [are] so many different trajectories to take and which path people take is hard. Sometimes they take a path, mainly because they need money, and they can't find funds to do what they really want to do. For instance, PhDs in reproductive biology, have a hard time getting NIH grants, so many of them end up working in pharmaceutical companies, which is helpful in the sense that they have a job, and they can do some things. Then research in a pharmaceutical company is so different, and you may work for a long time on a project and then it gets killed because it's not going to make a lot of money. On the other hand, if you decide to go the academic route, it's a real slog, you have to write a lot of grants. That's a dilemma. [With] nursing, it's very important for nurses who want to assume leadership roles to get an advanced degree and that might not be available for everybody because of the funds. I think the same thing about medicine. I'm glad to hear that many medical schools are now making full tuition available for students who really can't afford it because that's critical. I think the main thing is to talk about it. Then, also to step back and say, what is it that makes me comfortable? And what is it that I want to do? And then find the path that you want to take and not be afraid to make a change. I mean, it's very scary to make a change.

People thought I was nuts when I went to medical school [laughter]. It was hard because you know, it took me a long time before I [had] a safe financial footing. But that doesn't matter because I really, all my life, I've loved what I've done and so I have no regrets. I guess my advice is for people to be very curious and ask questions. And then there's always the same thing about finding mentors and finding people that can be helpful to you. That's sometimes serendipitous. Mainly the way I found Ines Mandl was just pure luck, but she was a wonderful mentor.

Sometimes it's asking for somebody to help you and just being curious, and also to know yourself very well that's the most important thing. [Also, to] not be afraid to change, not be afraid to speak out, and learn how to speak out in a way [that] is going to be helpful. Because you can speak out in a way that people don't listen because they can't hear it, it's too much for them at that moment. So, you have to bide your time, and you have to be smart and think about it. And last time I told you about how we made change[s] with fathers [being allowed] in the C-section rooms at Columbia. That's an example of just slowly, calmly, working on problems with people that you know, and not try[ing] to hit them over the head, but to keep leading them.

Then the other secret is changes made in two ways. One, I think in medicine and nursing it's made through research, that's important, because sooner or later people say, hey, yeah, this is important to do. Change is also made by just sort of a one-on-one situation where you take [and] you lead people to where they are the ones who are saying this is how the change has to be you know that that's the change that had to happen. But you're not going to tell them, you're going to lead them to the place where they take it and own it as their own. That is important because then they own the change, and they want to work on it. So that's one of the things I tried to do all my life was to help people understand why the change was necessary, and then adopt that change for their own. You know, so just keep plugging away, right?

GH 1:53:24
Yeah, I think often people forget that change and activism [don't] have to be such on a large scale, that it can be something on a smaller scale or within your everyday life that will eventually make a huge difference.

PL 1:53:43
That's right, absolutely. All of us have a responsibility to help make a change. That's how we do it.

GH 1:53:50
All right. I think this was a great part two interview with you. I just want to say thank you again, for taking out the time in your day to speak with us again. We really appreciate your contribution to our oral history project. We will have to do a few closing interview things again. Okay. For instance, we need to hear you say a production-style introduction. For instance, I would say my name is Gemma Holland, and I'm a current undergraduate student at Duke University.

PL 1:54:36
Okay. I'm Phyllis Leppert, and I'm a Professor Emeritus of OB-GYN at Duke University Medical School.

GH 1:54:47
And now we just need around 10 to 15 seconds of silence to get the room tone.

[silence]

Okay, I think that's good. And I think that's all the interview, like interview things that we have to do. So, I'm gonna go ahead and stop the recording.