Ms. Doris Wong

Oral History

October 4, 2022

Valera: Hello, my name is Devon Valera, and I'm the Assistant Curator with the Office of NIH History and Stetten Museum. Today is October 4th, 2022, and I have the pleasure of speaking with Doris Wong. Ms. Wong was a microbiologist at NIAID's [National Institute of Allergy and Infectious Diseases] Laboratory of Infectious Diseases, Hepatitis Viruses Section. She retired in 2004 after 46 years of service, and today we'll be covering the course of her career. Thank you for speaking with me today, Doris.

Wong: You're welcome.

Valera: We're going to start at the very beginning, do you want to tell me where you were born and where you grew up?

Wong: Yes, I was born many years ago, in 1933, in Philadelphia, Pennsylvania. I came from a very humble background. My father was an immigrant, got his citizenship, and married my mother who was actually born here, so I'm sort of one and a half generation American citizen. They had a business, laundry and dry cleaning, and I lived in a very ethnically diverse neighborhood. As a child I grew up just being – we were the only Chinese family in an all-White neighborhood, and there were times when I was kind of bullied and whatnot, but I just never let it bother me. My mother always told me don't get upset if someone makes fun of you because, consider the source. She was such a good person that way that nothing ever upset me. I never grew up with any bad feelings about anybody. I grew up there from 1933 and lived in that area until I graduated from college and got married and moved to the Washington, DC area.

Valera: Wow, were any of your family members, were they interested in science?

Wong: Not really, no. My mother only had a high school background, and my father was not schooled here so I just was always interested in animals and nature. I enjoyed bugs and stuff like that. So, basically, I probably inclined towards biology a little bit before I went to college. I don't want to neglect to mention that my brother, Robert Chang, eight years my junior, attended and graduated from The Philadelphia College of Pharmacy and Science. He worked in retail pharmacy for part of his career and later became one of Maryland's State Drug Inspectors to check on compliance of drug stores, hospitals, drug companies to State laws.

Valera: While in Philadelphia, what were your early school experiences like or your early memories? Any that you'd want to share?

Wong: Well, having been the only Chinese family in our neighborhood, I started going to a Chinese Church in downtown Philadelphia and so that way I got into the social group, a Chinese group. We were pretty close-knit, and we had our usual teenage parties and whatnot. I just had an ordinary childhood, actually. My mother, though, she was very good in that they didn't have a lot of money, but I was never seeking anything because I always got what I wanted. She said the only thing she could leave me was a good education, so she scouted around and actually got me a partially paid scholarship to the University of Pennsylvania. I attended that starting in 1951.

Valera: Okay. For undergrad or…?

Wong: For undergrad, yes. I was in the College of Liberal Arts, and I really didn't know what I wanted to do. I wasn't sure what I wanted to major in, but I took some general courses. Then I found that I got my best marks in microbiology. So, I decided, "Well, I should major in that," and I guess it went from there.

Valera: Oh, that's so interesting, so while you had some animal interest as a kid it sounds like it was in college where you narrowed into specifically what you ended up doing for your career.

Wong: Yeah, I really enjoyed the hands-on microbiology lab work and things like that. I figured I might as well go with that and see what happens. I actually had gotten interested in microbiology before I graduated because for the summertime, I didn't get a job one summer, but I was able to get into a free experience in a microbiology lab at the Women's Medical College of Pennsylvania. I got to see how they worked in the lab, and it was great because I wasn't paid but I got the experience.

Valera: While working in labs, did you have any mentors or early influences? While in college or during those internships?

Wong: There was a Dr. Kimmelman at the Woman's Medical College of Pennsylvania, and he encouraged me to continue, so I would say he was one of the people that might have influenced me to continue in the field. And then after college my first job was at the Temple University Medical School in the bacteriology section where we actually taught bacteriological techniques to girls – to people studying to be lab technicians. That was interesting for me although I never really enjoyed teaching. I would rather do it myself.

Valera: I didn't know that. Your first job that was at Temple and it was more of a teaching career than anything? What else did you have to do in the position?

Wong: We had to do everything that the lab technicians had to do. I had to learn how to bleed people and test all kinds of samples and go to the hospital and see the patients, so that was a good experience for me, that teaching position, but it really wasn't paying all that much. I got a job from there at the pharmaceutical company Merck, Sharp, and Dohme, which had a facility in the city where we tested certain batches of their products. I don't know if you're acquainted with their product, they were called Sucrets, they were bacterial things against colds. We had to test the different batches to see what their efficacy was. That was kind of interesting, but it was more of a manufacturing type job and not really all that inspiring, but it was good experience.

Valera: Yeah, that sounds interesting. I don't know if I am familiar with that.

Wong: That was Merck, Sharp, and Dohme, headquarters in Philadelphia. Probably not there now. So, then I got married and came down to the Washington area. My late husband, Ronald, also a graduate of PCP&S, had his career in Retail Pharmacy, working for Peoples Drug Stores, now known as CVS. On another note, his younger brother, Dr. Vernon Wong, was for a short time the Scientific Director of the National Eye Institute at NIH in the 1960's.

Valera: Oh interesting, so all in Philadelphia and down here. I do have a question about while you're navigating all these careers. Early in your career, what was it like as an Asian woman during this time in science? Did you have any impressions or what was that like?

Wong: No, actually. There wasn't anything related to my culture or being Asian. I never experienced anything that had to do with that, so that was kind of a smooth experience for me. I never had any discrimination or anything against me. I was happy about that when I look back.

Valera: That's good to hear. After these roles at Temple and Merck, Sharp, and Dohme, then you went to the NIH? What was that process like? Did you see a job opening or how did that work?

Wong: Well, before I left Philadelphia, when I was engaged and I knew I was going to be moving, I figured probably the best job opportunities were for the federal government. I don't even remember how I applied, but I applied for a civil service position. I actually got an offer for a lab, a testing lab in downtown D.C., where we would be testing certain products. Then I saw an opening at NIH, but it was a temporary opening. It was a six-month job in a laboratory, which was Dr. Robert Chanock's Laboratory, because his technician was going to be on maternity leave. They wanted a technician to fill in at that time and they said that if it worked out that they would create another position for me. I figured, "Well, I think I would like to go to

NIH." I lived in DC at that time, after I got married, so it was like an hour and a half bus ride or a drive. I mean it was a long drive, but it was worth it because I loved the campus when I got there for the interview. I interviewed with Dr. Robert Huebner, who was the chief of the Laboratory of Infectious Diseases at that time, and he was interviewing me for a position in Dr. Robert Chanock's lab which only had like two other technicians, so I was going to fill in for six months. I actually did get that job, and I really loved it. Then, when the other technician was coming back from maternity leave, they got permission to add another position for me. So I stayed and I was there ever since. That's how that worked out.

Valera: When you first arrived and you were placed by Huebner into Chanock's lab, what was he studying and what were you doing?

Wong: I think the position was open for a technician to learn cell culture techniques and other lab tests that he might be interested in. It was a learning position – it was a learning job totally because I had never done any of the things that the position called for. It was such a nice compact little, almost a family atmosphere lab, because it was so small and Dr. Chanock was such a joy to work for. He had his quirky ways, but he was just so wonderful to me the whole time of my career since he was my boss the whole time I was there. I stayed there and it was really a nice learning experience.

Valera: You had told me earlier, what was the name of that lab again? It was like respiratory or…

Wong: The Respiratory Viruses section.

Valera: Great. So that was where you began. Do you want to tell me a bit about your path? Where you went after that or even any early memories at that lab? We can start there.

Wong: Well, it was very small and, like I say, it was like a family. There were two other technicians there at that time, Mr. Walter James and Miss Virginia Gill, and we all got along spectacularly. From what I remember it was so different at that time because we were using glassware and we had a glassware washer, and we had an animal handler who took care of the little animals that needed to be bled if we needed their blood. There were certain people there that did all the autoclaving. It was just kind of really primitive beginnings in the lab which was fine because it was all interesting to me. We had to learn how to autoclave the media to make sure it was sterile, and I learned sterile techniques and pipetting and all the equipment. Every day was a little different. We had our own jobs, but it was different every day.

Valera: Was it also significantly different than the previous jobs you had? What was your impression? It sounds like you learned a lot here – like it was pretty different from your other roles.

Wong: I think it was kind of like a more personable relationship because we were all together all day and we all got along very well. We really had a lot of fun. Dr. Chanock was such an aficionado of classical music that he bought the laboratory a little radio. He would come in the morning, and he would put the programs on that he liked, so we listened to the music that he liked all the time, which was great. He was just one of the gang. The thing is, back in those days, we didn't have all the stringent sterile techniques that we see now in the laboratories. We each had a cubicle that we worked in where we could close the door, but we used to actually have lunch in the lab. We used to eat in the lab, which you don't think of doing now.

Valera: Oh wow.

Wong: I'm not sure if you got to read the article about Building 7, but it is a unique building.

Valera: I was just going to ask. When we first started talking about this oral history, we were talking about the places that you worked. This was in Building 7?

Wong: Building 7, yes. I worked there until 2001, when we moved to Building 50. Most of my time there was in Building 7.

Valera: You started out with influenzas and respiratory viruses. Then, I was looking at your papers and who you worked with, it seems like then you started working with Dr. [Robert] Purcell. Was that quickly afterwards? It seemed like a change in direction from what you were studying, is that true?

Wong: Yes, Dr. Purcell came into the laboratory as an EIS [Epidemic Intelligence Service] officer, and he decided to stay. I don't know if you read his oral history, but he was put into the hepatitis viruses studies because that was one of Dr. Chanock's interests. He just took the ball and ran with it. At the time, I was assigned to be his technician, so the hepatitis viruses "section", in quotation marks, was only Dr. Purcell and myself. We expanded after that.

Valera: Oh wow. So that's the beginning of the hepatitis section.

Wong: That's right, and that was about, I guess, maybe 1963? Somewhere around there. And it just went on from there. And of course, as the money comes in and the positions get granted, then the lab expanded. We moved to different places, but we were always in Building 7.

Valera: You started with the hepatitis section – do you have any memories? What was the science like or what was the direction the research went? It sounds like it was a really interesting time, at the beginning.

Wong: Well, one thing about NIH is that it was considered the Mecca and Dr. Purcell would get lots of requests from scientists from all over the world wanting to come for visiting fellowships. The whole time I was there, there were many, *many* people from different countries. They had their own projects, of course, and then they required help. I got to teach them a few basic techniques, so it was just one big happy family – one big global happy family. Everyone kind of participated in the hepatitis research. It was just amazing how everything meshed, and everyone was so interested and productive. It turned out there's five different hepatitis viruses that we had studied. That was quite the thing.

Valera: We were speaking about Dr. Harvey Alter, who you got to know pretty well, and who discovered some of these hepatitis viruses. If you could speak to that?

Wong: Yeah. We have a lot of people to thank for the samples that we had, and Dr. Alter, of course, was in Building 10 [in the NIH Clinical Center Blood Bank] which was not too far away. We got visits from him often, and we went to see him and then we collaborated. He had numerous samples so Dr. Purcell and Dr. Alter collaborated on quite a lot of studies with Dr. [Stephen] Feinstone and Dr. [Albert] Kapikian, who was the one with the electron microscope. Everything just meshed and everyone was so informal. I never really was in on any of the planning of the projects, but I got to participate in a lot of them. My entire job, the whole time, was keeping specimens straight and organized and being able to find them. We had thousands of specimens from different places, and they were all in Revco freezers, minus 70 freezers, which were all over the building. I had to keep track of where everything was. That was a large part. I spent a lot of my time in freezers.

Valera: I can imagine! I have heard a bit about all of Harvey Alter's international samples. That's very interesting.

Wong: Yes, of course, he had his own technicians keeping straight over there and so we would collaborate. The technical people used to get together to transfer samples and whatnot.

Valera: Knowing Dr. Harvey Alter as well, he has quite the personality. Do you have any memories of getting to know him and working with him?

Wong: Well, he used to come over to our office and visit a lot. The space in Building 7 was quite limited. I actually shared an office with Dr. Purcell. He had a desk on one side of the room, and I had one on the other where I did all my work. When he had visitors, the visitors came into the office, of course, and they sat on his side of the office. They would discuss the projects they wanted to do, and so, of course, I got to know him on a first name basis. He was really quite the humorous charmer. He actually gave a very funny presentation at my retirement party. I just think it's so nice that I got to know him that way and a lot of the other side.

Valera: I can imagine in such a small office.

Wong: I would sit in my corner and do my work – I had a lot of paperwork to do as well – and run in and out of the office. I could hear what they were talking about, but I was never involved in any of the actual planning of projects, but I mean they came up with them all the time. Every one of the scientists I worked with were just, I think, brilliant.

Valera: How did your job change over time? It sounds like you went from more lab work to paperwork. Is that accurate?

Wong: Yes, towards the end it was more paperwork like at the end of 1999. Around that time, it all kind of switched over. I did less lab work and more paperwork because after becoming the manager, I kind of had to oversee a lot of other things like the office equipment and keep everything running and ordering and keeping track of people. There was more paperwork that way and keeping records straight – the more people we got, the more records we had.

Valera: Were there other ways your job changed over time? Thinking also about how you were saying that you started with pretty rudimentary technology back in the day.

Wong: Well, like I say, we started when everything was glassware there were no plastics involved so we had to have pipette washers. Then, after a while, everything turned disposable and so nothing had to be washed. Everything was just disposable. We used to mouth pipette, using your mouth to suck up in a pipette. That's a no-no now. Now you have the remote pipettors where you don't use them at your mouth at all or don’t have them exposed to anything and of course gowns and gloves and masks for some things. I think we were only biosafety level two for most of the things. We never had anything really that infectious. Although I did acquire a lab infection when I was working with hepatitis. That was when we

were working in one room with samples, and then I think we used to eat in there too. At that time, which is in the very beginning when we started to work with hepatitis, they would monitor the personnel in the section, I don't know whether it was once a week or every other week and test their blood sample. The way it was detected I had gotten hepatitis was [because] my enzymes were elevated and that was the way they detected hepatitis B, but I didn't have any symptoms or anything. The only thing I had to do was I was required to stay at home, I think for two weeks, and then when my enzyme level came down, I was okay. But it was actually a lab infection.

Valera: That's interesting.

Wong: I was going to say, the safety measures, of course, accelerated after that.

Valera: Yes. I was going to ask – I guess as you're learning more about hepatitis you also have to learn more about how to be safe around it. I'm guessing those standards changed.

Wong: Yes, as with every infectious virus.

Valera: True enough. As you've had a long career at NIH, I know you wanted to speak to some of your favorite parts about it or the community. What were some of your favorite parts of the job?

Wong: Well, I enjoyed everything I was doing. I'm more of a hands-on person than like teaching or directing, so I was able to do that my whole time. The hands-on went from laboratory to more paperwork and then paperwork at the end, but I really enjoyed that part. During my career I saw so many changes including the beginnings of everything having to be on a computer. At that time, I was scared to death of being on a computer because I'm not a technical person. I was forced into learning how to order things and communicate. NIH is good though. They had classes for people for all kinds of learning techniques and computer skills and whatnot. The education there was great for me, because I'm sure had I not been at NIH I probably wouldn't have gotten into technology at all, so that, to me, was a big benefit.

Valera: It sounds like technology increased a lot both in the lab and outside of it. The way that you handled information.

Wong: Yes, it was, definitely.

Valera: During your career you had a couple opportunities to travel. Do you want to share your memories of those trips and where you went and what that was like?

Wong: Yes, the first trip I was able to take for laboratory purposes was when we wanted to get as many specimens as we could from different areas. I was sent to Hawaii because Dr. Leon Rosen, who was participating in studies with our lab and he knew Dr. Chanock, had the opportunities to gather a lot of samples from groups in Polynesia. We were interested in finding out if hepatitis A or any hepatitis viruses had been prevalent in the population in the Polynesian Islands. He had these batteries of samples, but he was really funny. He said "Well, we're not going to send them to you but if you send somebody over to get some samples from our collection that'll be fine." So, Dr. Purcell decided he couldn't go, and I was glad to go to Hawaii. I did have to go to Hawaii, and I don't know how many – maybe 500 samples – I had to take samples from him, transfer them. I mean he did not give us all of them; he gave us some of the samples. I had to actually pipette them, put them in vials, and send them back. But I did get a trip to Hawaii from that.

Valera: Oh wow, it's not a bad trip.

Wong: I know! That way we managed to get a lot of samples from people who actually sent them to us which was good. They were trying to just figure out how prevalent hepatitis was and what sections of the world they were from. Let's see – one of my other trips was to India. That was nice. We had a visiting scientist from India come into our lab and she was very interested in some of our lab techniques, and so she invited Dr. Purcell to come over to India to lecture on his technique and his findings and also to do the technique that I was doing at the time. It was kind of like a workshop that I went over there to show them how to do the tests and that was a good trip. That was a very nice trip. I got to see the University of Virology in Pune, India. That was quite a trip. I got sick on that trip too. Anyway, it was a good trip other than that.

Valera: I remember I saw one of your publications was also about hepatitis in India. It sounds like it was a valuable trip in many regards.

Wong: Yes. Then I think the other trip that I had was to Japan. We had a visiting scientist from Japan whom we worked with quite a bit, and when she went back to Japan, she was trying to develop a technique to get hepatitis viruses to grow in tissue culture. She thought she might have a technique to do it, and she said that somebody could come over and see how they did it in the laboratory. I was elected to go, which was fine with me. I got a nice trip to Japan and was able to visit Dr. Shimizu in her laboratory to see what they did with their tissue cultures. We were never actually successful in trying to duplicate what she thought she had found but that

was another good trip. These were all supposedly technology transfer of information trips which was really nice.

Valera: It sounds very interesting. We have been talking about some changes that have happened at NIH during your career, in regard to technology, but were there any changes on the campus? I think we had talked about how specifically 9/11 [September 11, 2001] had changed the campus a lot as well. If you could either speak to that or any other ideas.

Wong: Yes, well, after 9/11 things changed completely as far as entering the campus and being searched and all that type of thing. But all during the time I was there, there were buildings going up. When I first got there, Building 30 was the newest building. That was a long time ago, and all during the time I was there, there were new buildings going up. Things like Building 10, the cafeteria changed, and cafeterias were open in other buildings. I always loved the campus; it's very pleasant there. But then after 9/11 it's not as easy to get around. Of course, the parking was always a problem and that changed quite a bit. We have to scrounge around more to find a parking space. I used to drive in real early so I could get a parking space, but then when the Metro came in that made it a little easier for people. That changed a lot. There was not as much people walking on campus, that could walk right through. That [9/11] changed everything entirely. I see now it's even different. I go by there usually and I can see it's quite different even from the time when I was there.

Valera: During your time there I'm sure a lot of institutes and centers and labs came up as well. It sounds like you worked with, obviously, Dr Alter and in Building 10, but did you work with a lot of different labs and a lot of different people? You've mentioned some of them, but what was that experience like working across institutes at NIH?

Wong: Actually not really across institutes. People from other labs used to come over and visit Dr. Purcell, but I actually never did any work with them. I got to know like the heads of different laboratories because they would come and visit. It was more of a social visit for them rather than working with them.

Valera: Oh, okay. Do you have any other memories? We're going to go to some wrap-up questions now, but do you have any other memories of your laboratory work or any stories that you want to share?

Wong: Well, it was in the very beginning, like I said when Building 7 was quite new to me, I think there were stories that they used to share. They had showers in the restrooms because I think at the time it was supposed to be an infectious disease-oriented building, so the people

would shower before they would go into certain areas. We never used the showers at the time I was there, but at one time there was a laboratory that needed, I think it was an alligator blood or something, and so they used to keep a small alligator in one of the showers. I heard it but I never saw it. There were a lot of funny stories in the building that we knew about, and it was just this charming little place in the beginning and just accelerated after that. Like I say, I moved three times within the building because they changed different facilities. I also got to visit Dr. Kapikian in the electron microscope room, which was actually in the sub-basement, so you had to go down a hatch, it was almost like a submarine hatch, to go down there. You had to climb down a ladder and that was quite interesting. Of course, there were freezers stored all over the place, so we had to go from place to place to find your samples. It was a very active job and I got to do a lot of walking which was good.

Valera: It's a good thing you liked the campus; it sounded like you saw a lot of it.

Wong: Yes, and we walked around campus because it's very nice all during the seasons.

Valera: Great, so talking about your career, do you have anything that you consider your biggest professional accomplishment?

Wong: I think being able to be included on so many of the important papers that people wrote. Even the people visiting scientists, if I did any work for them, a lot of the time they would include your name on their papers, which was really nice, because a lot of scientists don't actually put their technical support staff on as co-authors. But we had a very good lab in that they appreciated what was being done, and they would include your name. I find that being on so many of their papers was quite an honor. I was able to author, I think, three as the main author, which was nice of course. I never wanted to be the head of a section or run a section, I just enjoyed being the support staff. I think being appreciated that way was probably one of my biggest accomplishments. Plus, they gave me a very nice retirement party.

Valera: That's really sweet. On the other hand, do you have any regrets looking back at your career?

Wong: No. I saw that question and I thought about it, and I actually have no regrets. Sometimes you had a little disagreement with somebody, but the entire time I was there I just so appreciated. I look back and I think of how lucky I was really to be there at that time during the transition time and during the research time that I was there. I believe I was there at the best time. I never really got into molecular virology because that was kind of beyond my learning

experience, but I did do some of the tests and I got to participate in some of the papers but that really wasn't my thing, the later technology. I'm just happy for the basic part that I did.

Valera: I know you mentioned that you felt like you were at NIH during the golden years, at least of virology.

Wong: Yes. It was a big social thing too. We had lab parties all the time and birthday parties all the time, and it was just a happy group. I got to know a lot of people, and it was just a very nice work environment.

Valera: That's excellent, and now you know a Nobel Prize winner, [Harvey Alter] of course.

Wong: Of course, yes, indeed. I think that might be that might be a highlight for me.

Valera: I didn't include this question, but I'm always curious. Did you find it easy or difficult to balance the personal and the professional lives – your life outside of NIH. Was it a good job for balance?

Wong: Well, for me it was because I never had any children, so I did not have to take any time off. My husband was a pharmacist for People's Drug Stores, which is now CVS, and so we each had our own job. It was just very easy to balance the two because I didn't have any responsibility with children. I'm sure would have been quite different if I had children.

Valera: That's good to know, thank you. I think we're wrapping up. Are there any other reflections on your career or on your time at NIH that you want to share?

Wong: Well, you know as far as asking about mentors, I think just being associated with the doctors that I knew and the scientific personnel that I knew at NIH, that was the highlight for me. That I got to know these people and know them personally and their families. People that have come through on visiting fellowships and have gone back to their respective countries and jobs and all, they still remember me and that's fine with me, that's great. I appreciate everything and that everybody was kind to me and helped me and gave me the opportunity to work with them.

Valera: That's excellent. Thank you very much, Doris, for your time and for sharing your story with us today.

Wong: Thank you for asking me questions that didn't require specifics! I appreciate that, for my fading memory and my age.

Valera: Well, you have great memories, I'm so glad we were able to capture them.