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Charles Mahan (CM): So today we're interviewing Dr. E. Charlton Prather, Skeeter Prather, who is actually the founder and father of our oral history series in public health. And so you interviewed me once before, and now, I get my shots at you. But really, we saved the best for last. So we're really glad to have you here.

You've worked in public health for 35 and a half years before you retired in '87, and I noticed in your sort of progress of your education from the University of Florida in bacteriology and entomology and then into medicine and then into public health, that it almost looked like that was a well thought out plan of steps. Did you—

Charlton E. Prather (CP): Oh, very definitely.

CM: So you knew exactly where you wanted to end up.

CP: Yes, I did, from the ninth grade, as a matter of fact. Ninth grade in high school, that is. And I must tell you that story, Doctor Mahan, because it's the beginning of what I think has been the most exciting career that any other person has ever had. I am certain nobody has ever had the satisfying career that I have had, and it's because I had superior mentors and guiders.

And some folks would say it was a mistake to have committed myself to a particular career so early in life. But in the ninth grade, my English teacher, our English teacher, first thing right out of the bat required a book report. We didn't know about book reports.

CM: And this was at high school in Jasper, right?

CP: Yes, Jasper, Florida. Say that more reverently, please.

CM: Yes, I will.

CP: Yeah, he does. Jasper, Florida, and I'm proud of that too, that I'm a born Floridian. Now, I went to the librarian and asked her advice that Mrs. Reed wanted us to do a book report.

And in Jasper, every adult was my parent. Every adult was everybody's parent, and every child was every adult's child because none of them would hesitate to discipline. And our real parents expected us to be disciplined whenever we needed to be disciplined.

So, the librarian knew me. She knew me. She knew my name, Skeeter. "Mosquito Hawk," she called me. But she recommended a particular book that she thought I would particularly enjoy, and it was *Microbe Hunters*¹. Oh, shoot. I'm cold on the author right now.

CM: Paul de Kruif²?

CP: Paul de Kruif, that is correct. Thank you very much. I cannot forget that. I'm embarrassed that I would forget that. But I read that book, and I was so excited about that book, about what he was doing, and before I was ended with that book, I knew that I was going to be a microbe hunter. And from that moment forward, my total education was aimed at my becoming and doing hunting microbes, literally.

And because of that, I had some very distinct educational advantages, even in high school, because of the commitment to a particular purpose. And everybody knew I was. That resulted, by the time I was sophomore, I had a bacteriology laboratory in the back of our garage.

¹Microbe Hunters (1926) is a book authored by Paul de Kruif. The book details the bacteriological work of the first scientists to observe the microscopic world.

²Paul Henry de Kruif was an American microbiologist and author. Publishing as Paul de Kruif, he wrote several articles and books. He is most commonly associated with the 1926 book *Microbe Hunters*, a bestseller for many years after publication.

My parents let me build an extension to the back of the garage, which became a bacteriology laboratory, kind of. I'd gotten a chemistry set the Christmas of the eighth grade and got very excited about chemistry. And I'd started just a little building back at the garage for a chemistry laboratory.

I need to tell you that because, by the time I was a senior, the junior class of chemistry, advanced chemistry from my high school, went to my lab to do the experiments that were required by the books. I had a better equipped chemistry laboratory than the high school did. And I just lived across the street from my high school, literally across the street.

And so most of the significant chemistry experiments were done in, quote, my laboratory across the street from my high school. I need to tell you that. But so, I had the beginning of a building with some modification that developed to a bacteriology laboratory.

And the high school principal gave me a basic book on bacteriology when I was in ninth grade, too. And I acquired some of my own bacteriology books. And through the books was making media. You want me to tell you about some of the medias that I did, but I bled the cat for some.

CM: I was going to ask about the neighbor's sheep, if they were in trouble.

CP: Didn't have sheep, but we had cats. And to make blood agar, I'd bleed the cat. And it worked good. It worked good.

CM: That's a great story.

CP: And that's true, but, at the beginning of my junior year of high school, my high school principal was registered for some courses at the University of Florida. He was a graduate of University of Florida.

And at the beginning of my junior year, the high school principal invited me, "Would I like to go and meet the professor and chair of the Department of Bacteriology at the University of Florida?" Which, of course, I did.

This was really an occasion. He had Saturday classes, Mr. Henderson did, the principal, so I went with him at his invitation. And he knew Doctor Carroll, who was the chair and head of bacteriology at University of Florida, and he had made prior arrangements for me to meet Doctor Carroll, and I did.

When I met Doctor Carroll that was a highlight. That's one of the highlights of my life, the first day that I sat with Doctor Carroll. And I was a beginning junior in high school. And that resulted in Doctor Carroll inviting me to come one Saturday a month, and Mr. Henderson would carry me because he would go to classes, he went every Saturday for classes.

And once a month, I would spend the bulk of a day with Dr. Carroll in the bacteriology labs at the University of Florida and that continued for two years. And he gave me, early, four Ezes. Do you know what an Eze is?

CM: No, I sure don't.

CP: Most bacteriologists don't. It's E-z-e if you want to look it up, and it's the bacteriology handle, the bacteriology loop, the inoculation loop. It's a little handle with a piece of wiring in the end of it. The formal name for those is Eze. Dr. Carroll gave me four of those, early, that I still have and used throughout my total bacteriology career those four ezes.

But during that process, was privileged to learn a lot of bacteriology, and he gave me assignments. He gave me readings to do. And it resulted in, ultimately, of course, I went to the University of Florida because I had been going to the University of Florida for two years by the time I was really eligible to go.

But I knew Doctor Carroll very well and knew a lot of the folks around the bacteriology department at University of Florida. And it provided me the educational advantages I'm speaking to because Doctor Carroll told me right early, from my first registration, I registered for Introductory Infectious Disease Bacteriology at Doctor Carroll's advice. And if I would pass the written exam given to the introductory bacteriology courses—as a matter of fact, I did that before I registered.

For the summer school, I took the final exam for the introductory bacteriology course with all those college kids. And if I passed it, I would have four hours of college credit for introductory bacteriology, which I had the day I registered as a student at the university.

And that was off on a career, and it's so focused. Even still so focused, even through the four years of college, it was very focused. And Doctor Carroll was anxious that I proceed toward a doctorate in bacteriology, if I wanted to be a microbe hunter. So, I was excused from helping with the Korean War because of acceptance into graduate school into what the military thought was an important area—namely, microbiology.

And the background, too, is unique in modern times. At that time, the Florida State Board of Health³ had a cooperative program with the University of Florida for the training at the master's level of laboratorian/microbiology, in which the classroom study was done on campus and all the laboratory stuff was done in the state board of health laboratories in Jacksonville. And I applied for that and was accepted for this cooperative program.

So you went directly into graduate school from leading to a master's degree in microbiology with the Florida State Board of Health cooperative program. The director of laboratories was a gentleman by the name of Albert V. Hardy, one of Florida's outstanding public health personalities. And I had met him while in college.

While I was in undergraduate school, I had been in Doctor Hardy's company a number of times since I was privileged to be elected to the honorary scientific fraternity of the university. And during my presidentialship (sic) thought all the guest speakers were microbiology. I hope you would appreciate that.

CM: Is that right? That's one of the privileges.

CP: That's right. And Doctor Hardy was one of those. In fact, he was a speaker several times, just a super guy. But anyway, I was accepted for that program and moved to Jacksonville to enter into the laboratories—physical laboratory there. And I pursued my master's degree studies through that laboratory activity at the state board of health, very applied microbiology.

And I had some advantages that I think were unique for research. Opportunity for hunting microbes was just marvelous. And one of those, for your interest, we were in the final

³The Florida State Board of Health was the predecessor agency to the Florida Department of Health and Rehabilitative Services (HRS), which was later split up into the Florida Department of Health and the Florida Department of Children and Families.

throes of ridding Florida of anthrax⁴. And the Department of Agriculture was in the final stages of its testings—US Department of Agriculture—for certifying Florida free of anthrax. We had a lot of endemic anthrax up until the late '40s and the early '50s.

One of my undergraduate things done by my minor was in entomology. My chief entomology person suggested that it would be very useful for me to apply microbiology. They were looking for the appropriate conveyors of the anthrax and not so much for the anthrax, other than clinically.

And my entomologist suggested—Dr. A.J. Rogers, I need to mention his name suggested the blowfly, the screwworm fly^5 , had been very influential in transmission of anthrax in Florida. And there were still a lot of blowflies around. And he suggested, Why didn't I catch some, do enemas on them, and look for anthrax? Doctor Hardy thought that would be a neat project for me.

So I did. And part of the entomological stuff, I traveled over North Florida at state expense, too, by the way. The laboratory gave me a car and helped me with the equipment and all the stuff to capture the flies, which was nice, and I'd go set traps to catch blowflies in places.

And I'd carry them back to the laboratory and develop them—try to do enemas. And me and the entomology professor, we worked all sorts of ways to do reasonable enemas, just to have the interior, not the exterior. The exterior microbial flora, these suckers.

CM: So to speak.

CP: Well, we did.

CM: Just couldn't get them to bend over, huh?

CP: Yeah, we did. I worked out a technique with a needle, but it wasn't really successful. As far as I'm concerned, everybody else didn't think it was real successful either.

⁴Anthrax is a rare but serious bacterial illness that can be spread to humans through inhalation or contact with infected animals. Serious cases of anthrax can be fatal.

⁵The blowfly, or screwworm fly, is known to be vector of various pathogens, such as dysentery and salmonellosis.

CM: But did you find the organism in them, or-

CP: Never found. I did microbiology on the exterior flora, let them walk on appropriate media, and then enemanized (sic) them, got internal flora. Got different on over a thousand flies from about 20 locations through North Florida and didn't recover a single one. And it was good bacteriology, but it was good entomology because I had to identify the flies and a whole lot of stuff I had to do for the entomological piece that you could appreciate.

And I was privileged to learn a lot about flies and things in medical entomology are related to that. Doctor Rogers was professor of medical entomology at the university—A.J. Rogers. He subsequently was employed as director of entomology for the Florida State Board of Health. It was my privilege to employ him. And he and I have been very good personal friends. He's also been taped for this—for our historic tape, yeah.

CM: I just wanted to ask you about when the military deferred you because of they thought your work was important, what part of your work did they seem to be most interested in?

CP: Through Doctor Hardy, Doctor Hardy was chairman of the Enteric Committee of the Armed Forces Epidemiological Board⁶. And Doctor Hardy was truly an international expert on enteric infections and was recognized as such. And as I said, I knew Doctor Hardy two years before I graduated and was, really, in line for this special training curriculum.

And I was an ROTC graduate, was given my papers to report to active duty the same day I was given my commission as a graduating ROTC student at University of Florida. Had been accepted to graduate school at this point and presented my dilemma to Doctor Hardy, and he thought because of what I was about to entice on—because he would see to it as I was a graduate student under his tutorage, would certainly get a lot of enteric bacteria. This was influential in me doing enemas on blowflies because he was interested in enteric stuff.

I also looked for salmonella, by the way. One of Doctor Hardy's major ones was on all those flies. I ran a salmonella screening, too, didn't recover a single salmonella, just for your interest. But through his influence, entirely through Doctor Hardy's influence, I was

⁶The Armed Forces Epidemiological Board (AFEB) was created during World War II with the purpose of studying and treating epidemics that could potentially affect members of the armed forces; the board was established as an administrative response to the rampant spread of infection among soldiers during World War I.

given a deferment for graduate study. I'll come back to that, but that wasn't the end of their being interested in me too.

But during those two years, in the latter part of those two years, at Doctor Carroll's advice, I applied to Western Reserve because, one, we're interested in medical microbiology at that time. The place to be was Western Reserve, and I applied as a doctorial candidate there. But Doctor Hardy allowed the sorts of things that my ambition was, as a microbe hunter.

Sometime during this period, I learned the word epidemiology. I never had heard that before. I guess I was at graduate school in University of Florida when they introduced this new term to me, epidemiology. And that's really what I was interested in: the epidemiology of germs, if you will. And Doctor Hardy knew that, and everybody else knew that.

And it was Doctor Hardy's strong, strong, strong, strong, strong opinion, in spite of the fact that he wrote me a letter of recommendation to accompany my application as a doctorial candidate, he wanted me to go to medical school. "What to do what you want to do, you need a medical degree."

And one day, I'd been out in the field looking for leptospirosis, *Leptospira*⁷. For your interest, got some scientific publications in juried journals as a graduate student, both in the blowfly study, several in leptospirosis. *Leptospira* was becoming a problem in the late '40s and the early '50s, and as a graduate student I was privileged to be involved with some epidemiologic studies of leptospirosis.

And as an aside, I need to remark that that study as a graduate student, I was responsible for going to the field. First, with the state veterinarian, who taught me how to bleed and catheterize cows, and we did studies into the distribution of *Leptospira* in dairy cattle. And it was my privilege to travel all over the state and to do the necessary preliminary work with dairymen, and through the county health department, to inspect it.

And the only way of isolating *Leptospira* at that time of the study depended upon threeday-old golden hamsters. And we injected urine and blood into the cranial cavity of threeday-old hamsters, and then bled the hamsters to look for the *Leptospira* in their blood, beginning seven days later.

⁷*Leptospira* is a genus of corkscrew-shaped bacteria that causes leptospirosis, also known as Weil's disease. When left untreated, leptospirosis can lead to kidney and liver damage and even death.

So the study, funded by the Armed Forces Epidemiological Board, by the way, to the state board of health laboratories, Doctor Hardy—I was given a panel truck, some 20 sets of brood hamsters, for the purpose of assuring that I had three-day-old hamsters when I needed three-little-day-old hamsters when I was in the dairies for the midnight bleeding —midnight milkings because my presence would upset the cows, and I'd stick them in the neck for blood, run a catheter up the other end for urine. Did that for specimens.

And just a marvelous time, over a period of about a year, that I traveled to dairies totally all over Florida, from Pensacola to Dade County, bleeding and catheterizing cows, looking for *Leptospira*, and found it. I found a lot of *Leptospira*, two new species, as a matter of fact—

CM: Pretty much all over the state, everywhere you looked?

CP: Yeah, everywhere we looked. And when we found one on a dairy—not all dairies had them—but when we found it, then the study would involve us there. It was their wildlife sources. And with the freshwater fishing and the [Florida Fish and Wildlife Conservation Commission] would never find such—to a cooperative agreement with them.

They would come and capture live, wild animals, like foxes and raccoons and opossums and squirrels. And I would set traps for rats inside the dairy, and the rats were sacrificed. All the other animals were bled and let loose, but the rats were sacrificed. We'd bleed them and look for *Leptospira*. I don't remember the details, but we found *Leptospira* all over the place. When we began to look, it was all over the place, so to speak.

But that was non-distinct, but Doctor Hardy was insistent that I go to medical. The whole reason I got into *Leptospira* was on one of my return homes—and I'd be gone for a month. I was a single man in those days, slept with my hamsters, literally, in a panel truck that had been designed specially as a breeding house for hamsters. And I carried a whole lot of hamsters, kept three-day-old hamsters.

CM: Was it possible to sleep in a place with all those hamsters breeding?

CP: Yeah, they were my buddies. Because I needed to be at the—typically, typically, the dairymen would not let me come until the midnight milking, which was around about 2:00 a.m.

So I'd go to the dairy and sleep until the foreman woke me up, and the cows were in their stalls. And identified the ill ones, and then sample all the well ones. Any cow that was ill, we would bleed and catheterize. And then, through some sampling mechanism, we'd do a certain proportion of all the, quote, well cows, too. So, I slept in the van.

But on one of those occasions when I went back to Jacksonville with all my specimens to head incubators—because I had to bleed my hamsters if I was going to be on the road longer than a week and inoculate the medium for the isolation of *Leptospira*. So I'd return to Jacksonville to unload and resupply with some friction.

But on one of those occasions, when I came in, Doctor Hardy had had his secretary to fill out the applications for admission to, I think, seven medical schools. And the secretary tells me that Doctor Hardy had had her to do this, and I was instructed to sign them. Application to medical school. And so, I did. And, actually, I think the application fee those days, the max was about 20 bucks, about for an application fee today it's 1,000 dollars.

CM: I don't know.

CP: Something like that, I think, someone told me. That's nonrefundable. You have to give them 1,000 bucks just to look at your application. And Doctor Hardy paid the application fees for me, to all of those. And I think the most expensive one was about 20 dollars and that was John Hopkins. The most of them was 5, 7.50, 10.

But applications to seven medical schools. So I applied to medical school. I'd already applied and had been accepted at Western Reserve by this point. Dr. Hardy thought I needed to go to medical school. If what I wanted to do, I had to go to medical school. I said—

CM: So you were accepted at Western Reserve for a PhD, not medical school.

CP: That's right, right. Western Reserve for a doctorial candidate in microbiology PhD, yeah. Yeah, then, by jolly, I was invited interviews for every one of those medical schools, I really was. They were hard up, I thought.

CM: Well, no, you had a spectacular background compared to most people is why, I imagine.

CP: And pretty good grades, yeah. I had pretty good grades. Anyway, I went. Why do you want to go to medical school? That was a common question. "Because I am interested in the epidemiology of infectious disease, and I want to train myself to be a microbe hunter," told them all that. What kind of career do you want?

"I want to be in public health. My ultimate ambition is to be the state epidemiologist for a state health department. And if I have my wishes, it will be the Florida State Health Department." I told all interview committees that. "Nope, I don't want to be a big surgeon." I didn't tell them I wanted to be a big surgeon. I didn't tell them I wanted to be an obstetrician. "I want to be an epidemiologist," I told them that.

CM: Did any of them argue with you?

CP: Nope. Nope, nope, nope. Well, several told me that my education was so limited. I'd had none of the broad stuff that they like to see for a physician. Hell, I didn't have an advanced sociology. I didn't have advanced literature studies. I was not certified in the fine arts, but I had microbiology and chemistry and mathematics, but that's all. That's all.

CM: Of course, nowadays, that's all they want you to have.

CP: Well, they wanted to be broad. And I was criticized, all medical schools. And John Hopkins turned me down, did not accept me because I did not have an appropriate breadth of background education—in writing, they told me that in writing—but that if I was to return and take certain courses, they would be glad to entertain my education at another time. But they wanted me to broaden my background, and I told them, that's what I wanted to do.

Plus, there's another little something through the—back to the Armed Forces Epidemiological Board, back to enteric infections. While I was an undergraduate student there at what, then, was the National Foundation for Infantile Paralysis⁸ maintained for their researchers a monkey-conditioning farm at Bluffton, South Carolina.

Bluffton, South Carolina, is the southeast-most point of South Carolina, the most isolated of the places possible in the United States, probably. And the polio foundation had

⁸The National Foundation for Infantile Paralysis was founded by Franklin D. Roosevelt in 1938 to combat polio; it has since been renamed the March of Dimes Foundation and has taken up promoting general health for expecting mothers and babies.

established a quarantine station for imported monkeys that they brought in to provide their researchers, and they were brought there. It was called a conditioning farm.

The monkeys were tested for tuberculosis⁹ and a number of other conditions. And any that were found to have communicable disease were sacrificed and well monkeys were sent home to their researchers. At the time, there was much, much, much hope and promise that a polio vaccine was on the horizon and how we may get one.

And the way of reproducing the polioviruses was only on monkey kidney tissue culture, and monkeys were susceptible to polio. They were the prime research animal for poliomyelitis. But in 1951, '52, '53, the monkeys developed an acute diarrheal disease. And on the farm, each shipment, they were suffering a 10 percent mortality. What, in their opinion, due to diarrheal disease in the monkeys.

CM: Arriving with it or getting it after they—

CP: Arriving with it and then spreading like wildfire when they got there with a high mortality rate that they had not experienced before, as high in 20 percent in some shipments. And they were being brought in from India. [Rhesus macaque] monkeys and a few *Macaca mulatta* monkeys from the Philippine Islands were brought there. And their capacity was 12,000 monkeys, at the time.

But the National Foundation for Infantile Paralysis, this being diarrheal disease, contacted the Armed Forces Epidemiological Board—a General Mitchell, commander of the Armed Forces Epidemiological Board—for help. And General Mitchell, chief exec in charge, looked to his enteric infection committee, Albert V. Hardy, chairman, to do something to look into this.

So Doctor Hardy was called and found out the details, and he invited me to accompany him when he went to Okatie Farms, the first time, to kind of get a handle on, kind of see, one, if the epidemiological board could offer some assistance to the foundation, and, two, they would be very interested in diarrheal disease because that's what the enteric infection committee was was diarrheal disease.

And Doctor Hardy was very excited about these prospects, and he speculated on about 40 different things that could have been. And we went up on a Sunday. We left Jacksonville on a Sunday and drove to Savannah, and we would spend the night. Then on into Okatie Farms, out of Bluffton, 40 miles northeast of Savannah is where this place is.

⁹Tuberculosis (TB) is a potentially deadly bacterial disease that mainly affects the lungs.

And we went and he had brought some enteric media and some Hardy-Watt swabs. Not being enteric infection, you don't know about Hardy-Watt swabs. Korean War is still going on, and I don't appreciate that, and I'm on furlough for graduate studies. I was still involved with leptospirosis, but Doctor Hardy invited me to accompany him.

And on Monday, we took some random rectal swabs and picked up some feces from the monkeys and returned home to the laboratory and did all sorts of microscopic and microbiological stuff. And, lo and behold, found shigellosis¹⁰, found *Shigella*. That's of no consequence to you, but this *Shigella* was not unheard of in monkeys. It had been documented, but not a propagating epidemic.

But they found *Shigella*, and our rate was pretty high in diarrheal monkeys. Some salmonella was scattered in there. Some amoeba was scattered in our preliminary specimens. We found all of this stuff the first time we were up there. But the upshot was the committee on enteric infections thought that this was a worthwhile pasture for some significant studies.

And an early question was: was shigellosis self-propagated among the monkeys? And that was an early hypothesis to be tested. Consequently, we had already made a person drive to Savannah, and it ended up, after that point, that I would go to—I was assigned the responsibility to go and gather the data and gather the specimens and return them to Jacksonville to the central laboratories for study.

But it was soon apparent, through culturing monkeys, as they were being unloaded from the trucks. Trucks from Okatie went to the airport. The monkeys were flown directly into the Savannah airport, picked up by trucks from the farm, and brought to the farm.

In taking rectal swabs from those monkeys coming off of the airplane, as compared to monkeys who had been there awhile, we could track the rates of infection, which we did in a very careful way. And soon was concluded that the disease was, indeed, *Shigella*, was, indeed, passing from one monkey to the other.

Now, this was new. This was brand new in scientific endeavors, that a propagating epidemic of shigellosis had never been documented, had never been observed outside of the human species. And since shigellosis, today, still carries the distinction of having killed more soldiers in all of the wars than all the weapons combined that one of the

¹⁰Shigellosis is an intestinal disease caused by the *Shigella* bacteria; most who are infected with *Shigella* develop diarrhea, fever and stomach cramps.

shigellosis has killed more than everything else together. And that sustains even with more soldiers—I'm sorry, more soldiers than all the weapons put together.

So, the Armed Forces Epidemiological Board got very excited that here's a propagating epidemic of shigellosis in a research animal and we can do a lot of manipulating there. And the Armed Forces Epidemiological Board is terribly interested in studying the epidemic.

The polio foundation had all these monkeys that were costing, at the time, about 40 bucks a head. And we were constantly reminded that, that 40 bucks comes at 10 cents a time, the march of dimes. I remember a lot of good discussion about, What are you going to about it? Now you've got it, what are you going to do about it?

But soon, and I have a publication on the efficacy of injected tetracycline¹¹ against enteric infections. And the first substantive study of that was done at Okatie. You can't depend upon the monkeys to take oral.

And a number of things, by virtue of that, had a lot of good tract with the Pfizer people, and they furnished the tetracycline, made up some special injectable solutions for us to use in the monkeys. And soon, injected tetracycline was controlling the epidemic, and we did control the epidemic.

But, as an upshot for the studies, the epidemiological board decided that they should have a laboratory on site and a person on site and a laboratory system on site—this is Doctor Hardy—to do these things. Well, it wasn't very long before I found myself with an army-mobile laboratory, super laboratory on one of those big trucks.

That was moved into Okatie, and I was moved to Okatie, and in about, as a matter of fact, four months before I actually moved to Okatie, I was married. And I was married to a nurse. And so, since Doctor Hardy/Armed Forces Epidemiological Board, wanted me in Okatie to do these things, they would commit theirs, since I was marrying a nurse, it was on the deal.

If they gave her proper training, she could become a laboratory technician, which they did. The state board of health taught her in the auspices of *Shigella* isolation and identification and *Salmonella* isolation and identification. And we were packed off to Bluffton. We moved to Bluffton.

¹¹Tetracyclines are a group of versatile antibiotics.

CM: Did you tell her, before you got married, where you were going to live?

CP: Well, she was in Chattahoochee at the time, just before we were married. So it was more important, either—I won't tell that I got you from Chattahoochee, if you won't tell that I came out of the monkey farm.

CM: That's good, that's good. That's even.

CP: Yeah, we did. But after we got up there, I had now finished my degree—my master's degree. And the Army was still in need of transportation corps officers, obviously, and I was a transportation corps officer in the United States Army. They thought they needed me real bad, so I was summoned to active duty, and I applied for deferment. Summons to active duty, applied for deferment and got it.

And shortly, just shortly after we arrived in Bluffton, I got another summons to active duty. And Doctor Mitchell had taken care of the last two. But by now, I know Doctor Mitchell, and when I got my papers to report—and they usually gave me about three days. And I got my paper and, You report to Fort Benning in three days from now.

CM: They kept trying to get you back because the Korean War was still going on.

CP: Yes, it was. Yes, it was. And in Bluffton, after my third order to active duty, I called Doctor Mitchell and told him I got to leave in those three days. I have no uniform. I am not prepared to go. And Doctor Mitchell said, "Give me the numbers, and I'll take care of it. I'll tell you what we're going to do: We're going to clear you on active duty right there, and get them off of my neck," his neck.

And in just a few days, I think it was a US Marshal—the US Marshal arrived at the Okatie farms and had me to swear and declare, and I was on active military duty there and I spent—I was still on active military duty in my first two years in medical school, too. But, while all this was going on, I was privileged to be in the company of all the polio folks, all the big boys.

And Bluffton, this little town where we rented an apartment was really the jumping off place. And the closest grocery store was 40 miles, really. That was in Savannah. So anybody who wanted to visit Bluffton, and there were many because of the research that was going on, it was convenient to stay in our home. We had an extra bedroom in our

little apartment. And it's truly a privilege. Because of that, Sabin¹² has been an overnight guest in our home. Salk¹³ has been an overnight guest in our home.

CM: Albert Sabin and Jonas Salk, my God.

CP: Both were overnight guests in our home and ate my wife's cooking with me. Said it was good, too.

CM: That's wonderful.

CP: And I just think of those and General Mitchell, Doctor Hardy many times, and other very notables, very notables. The polio foundation folks, they had a guest cottage on the farm that was kept for polio foundation big shots who would come for a holiday. And a particular guy by the name of Mr. Kirkman that I remember well.

But I tell you this because, as I was leaving for medical school—in the meantime, I had been accepted to medical school, and I have chosen a medical school. And I really chose a medical school. I was complimented with those who would willingly have me. And I chose the Bowman Grey School of Medicine, Wake Forest College, in Western Salem because of my interview with them.

They were the only ones of the interviews that didn't look down their nose at me for seeking a career in public health, and I felt that the others thought I was stupid, What are you doing, boy? But they still accepted me. They accepted me to medical school.

I can't help but think that a part of that—I was very involved in enteric infections and had —because of papers that I was privileged to give for the Armed Forces Epidemiological Board, American Public Health Association, and multiple other fora on enteric infections, on germs, because of the research being done at Okatie.

I was privileged to be on the cutting edge of a lot of stuff. Including the use of injectable antibiotics against enteric infections of multiple types, all documented and very carefully studied.

¹² Albert Sabin developed the first live-virus, oral polio vaccine.

¹³Jonas Salk developed the first killed-virus, injectable polio vaccine.

Along about that time, somebody, and I don't remember who, but in the early '50s, *E*. $coli^{14}$ O52-dash-something-something-something was speculated as being pathogenic. There's an *E*. *coli* that was causing trouble, particularly in young people, was a theory.

But because of that finding, and I can't remember who did the report, but we got appropriate identification antiserum, and we added that to the routine. We would sample *E. coli* that came out of the monkeys, looking for the pathogenic strains. Didn't find any, didn't find any.

But a number of publications on infantile diarrhea, newborn diarrhea, that had been published, distilled theoretic, distilled hypothesis for study. But the polio foundation, being interested in things kids, was very interested in that. And I was offered a research grant by the polio foundation, by the National Foundation for Infantile Paralysis, to continue research into the frequency and distribution of the pathogenic *E. coli*.

And when I went for interviews to medical schools, one of the things that I had to ascertain was: Would you manage my research money, and how much will you charge to manage my research money? And I had a very nice grant, don't remember the size of it, but it paid me a nice little stipend. And it paid the university a nice—it ended up being 30 percent, 30 percent of the grant went to the university for maintaining the money and all expenses.

And it was like that. I think all my purchases were paid by the polio foundation. I just sent them the bill, and they sent a check to the university and a check to me. And any expenses, like rental of laboratory space—and I did, rented laboratory space, hired a technician myself as a professional and in medical school.

But to the medical schools, they were all very excited about that, that I was arriving with research money. It was just like finding money on the street, from their point of view. And because there was money for rental, there was money for rental. There was money for setting up a laboratory. And they had to guarantee that I had access to the newborns and to all this enteric diarrhea that was admitted to the hospital that I could personally get the specimens.

I'm boring you with all these details, but I'm leading to a commitment to a special career. And the moral is the distinct advantages that I enjoyed by being committed to a special field that was well known. And I think I enjoyed training opportunities far beyond that of

¹⁴*Escherichia coli* (*E. coli*) is a bacterium that infects the lower intestinal tracts of humans and can cause serious food poisoning in its host bodies.

the routine student, by knowing where I was. And because of the infantile stuff during the

I need to finish that because I pursued this for two years, my first two years of medical school. And the faculty knew it. Microbiology had a lab in the microbiology laboratories of the hospital, which was combined with the research labs of the Department of Microbiology within the medical school, those two.

So I was around the diagnostic folks and around the research folks, and I was considered one of the research labs and half a full-time technician and maintained a full-time lab. So that was nice.

And we did that for two years and never—got several strains I sent off to the CDC [Centers for Disease Control]¹⁵. I'm now related to the CDC through—I'd been related to the CDC laboratories for a long time with *Leptospira* and with funny gram-negative bacteria out of monkeys and things like that. And so, we quit that.

But because of my laboratory setup and the technician, the—I can't remember which department. I think it was the Department of Internal Medicine. One of their professors suddenly got terribly interested in streptococcal infections as related to any one of a number of things: rheumatic fever¹⁶ and rheumatoid arthritis¹⁷ and some other stuff.

Then I spent my last two years of medical school on a research grant looking for *Streptococcus*¹⁸, incidentally, and my little technician stayed with me. We looked for *Streptococcus* in this. I didn't have anything with *Streptococcci*, never isolated a pathogenic *E*. *coli* from anything. But all that was fine.

CM: Well, what else did you do? And this is while you're in medical school?

CP: Yes, in terms of my career. There's one other thing. Along about this time, if you'll remember, in '57, the first significant report on the golden killer of the hospitals,

¹⁵The Centers for Disease Control (CDC) is the leading national public health institute of the United States. The CDC focuses national attention on developing and applying disease control and prevention.

¹⁶Rheumatic fever is a serious disease that can develop from inadequately treated strep throat; it causes inflammation of the heart, blood vessels and joints.

¹⁷Rheumatoid arthritis, also called atrophic arthritis, is a chronic inflammatory disorder that affects the joints.

 $^{18 \}mbox{Streptococcus}$ is a genus of bacteria that is responsible for causing infections such as strep throat and toxic shock syndrome.

*Staphylococcus aureus*¹⁹, was published. And there was great attention on the part of hospitals nationwide and the CDC to establish infection-control committees.

We've got to do something about *Staphylococcus aureus* in hospitals, and it's developed antibiotic resistance, and it's a pain. We need to do something about it. Our teaching hospital in North Carolina Baptist Hospital responded to that and established an infection control committee between my junior and senior year in medical school.

And I was privileged, because of this background and my interest in such things, to be appointed as a senior—at the beginning, during the summer—as a hospital epidemiologist with power to take specimens or have specimens taken wherever I thought they needed to be taken and the power of isolation.

If, in my considered opinion, this patient had a possible infectious disease, bringing hazard to other patients, my signature, as a senior medical student, would order isolation of that patient. And that was accepted by medical staff, the hospital board, and everybody else.

That provided me with some unique training opportunity because the hospital paid my way. And I went to a number of national conferences on hospital infection committees, on *Staphylococci*. And those things created there, at a particular staphylococcal meeting in New York City—I was senior medical student, I remind you. The director of research, I think it's the [Eli Lilly and Company] who was present and we met.

From that, it was lifetime friendship, from that guy and my relationship to Eli Lilly through that system. He retired and moved to Florida in due course. Outstanding epidemiologist, pedigreed in many, many ways, an academician of the first order, but a researcher of the first order employed as director of research for the [Eli Lilly and Company], I think.

CM: Hospital infection control is really a big deal nowadays, and it grew out of that.

CP: And the *Staphylococci* are coming back as a significant problem. And that disturbs me with you practitioners of medicine. You're abusing antibiotics worser and worserer (sic).

CM: That's absolutely right.

¹⁹Staphylococcus aureus is the bacterium responsible for causing Staph infections.

CP: Excuse me, sir.

CM: So are the agriculture people.

CP: Well, that was the because-of. I enjoyed these very special advantages because of a commitment to purpose and made no bones about it. I didn't apologize to anybody about it. And I'm beginning, now, still have very direct close contact with the Florida State Board of Health folks.

Particularly Dr. Hardy that I've maintained these friendships with. Still a mentor, still an advisor on infectious disease, which impressed—when Doctor Mitchell came to see me in Western Salem, and I saw fit to introduce him to the dean and get him around because of who he was, not because of who I was.

And others, other important people who were interested in the research that I was doing would come, would come for an update. The big shot polio people, if they were in the vicinity, would drop by because they had money there and the money should stick. And it was always a great pleasure, and it was always the awe of my professors that I dealt with such people.

CM: That's neat. That's great.

CP: Yeah, it was fun. Some other special privilege, though. I want to move ahead. Along about the time I was fixing to graduate from medical school, another interesting germ was becoming to the forefront that, at that time, was called the atypical mycobacteria. It was confusing diagnosis and management of tuberculosis.

And the earlier reports suggested that this was a disease of the Southeast. The Battey [State] Hospital, the tuberculosis hospital of the Georgia system, had done the preliminary research and had done the preliminary identification of this acid-fast organism that had a lot of characteristics of tuberculosis and was frequently found in tuberculosis patients, from whom they could not get mycobacterium tuberculosis.

That was coming to the forefront in '58 and '59 and '57. And Florida tuberculosis control system was finding a lot of these *Battey bacilli*, these non-tuberculosis acid-fast

organisms, and had applied to the National Institutes of Health²⁰ and received a large research grant into the frequency and distribution into the epidemiology of this organism.

And while, yet, I was a senior medical student. I was called by Doctor Hardy, told of this research grant. They would like for me to come and head it up. I've got to do my internship. When you get out of medical school, you're supposed to do your internship. "Well, we think this is important. We think this is important to your career, probably more important than your internship."

So I talked to my local advisors at medical school about doing this for two or three years, getting it set up and then going. Mixed emotions, mixed emotions by the medical school advisors, that I'd be cold.

CM: And these were rotating internships at the time?

CP: Yeah. Yeah, that's right.

CM: So you really had to work in all the areas, not just—

CP: They worried about that. They worried about that. But anyhow, I made the decision to come back to the state board of health, because I wanted to be here. I wanted to come back to Florida. My ambition was to be the state epidemiologist for the State of Florida public health system. And this was unique, but I worried about it. I worried about a lot.

CDC was on my back, too. CDC was making me some marvelous offers, marvelous offers, that they would put me on payroll and pay for my internship wherever I could get accepted, to go anywhere I wanted to and full-time employee of the CDC. That was before I was graduated from medical school. So I was torn with that, as to what to do.

But we elected to come back. And as it worked out, it was super-duper. I came back and got in on the ground floor of the atypical stuff, got a whole bunch of scientific publications in juried journals around the atypical mycobacteria. And a lot of nice opportunities associated with that, in terms of my chosen profession, that of epidemiology. And became recognized, kind of, as a budding epidemiologist.

²⁰The National Institutes of Health is a biomedical research facility that forms part of the United States Department of Health and Human Services.

To where we are now, it was beginning to be post-Korean War. We're beginning to be Cuban Crisis; we're beginning to be the Cold War and all thereunto appertaining. And the US Public Health Service²¹ began to worry about leadership for public health function in this nation.

In terms of my own career, the National Institutes of Health offered a five-year fellowship for selected folks, to prepare them for leadership careers in state public health. In Florida, again, Doctor Hardy applied for some of that.

And I was privileged to have my name submitted as one of the candidates for the specialized training being done by the National Institutes [of Health] and others, to guide some selected folks through some very careful training preparation. I was involved with the atypical mycobacteria studies.

But I was privileged to be one of five people in the United States selected for this specialized stuff, which included payment for an internship on salary, for a year of residency, a year of MPH and a year in the London School of Tropical Medicine is what the plan was, with a visit to the National Institutes of Health and all over the place for specialized training into administration and to attitudes of public health.

And the five of us gathered here and there at public health service expense, often for specialized sorts of stuff. But because of that, through that special influence and some money to the Jackson Hospital, a special internship—a straight internship in infectious disease was arranged for me.

And I spent a year at the Jackson around germs, only dealing with germs for a year, a unique opportunity directly related to my commitment to this area, the area of infectious disease, epidemiology. Dr. Eugene Flipse was the professor of preventive medicine at the time.

You would remember Dr. Eugene Flipse as being the guy who shot up, designed, supervised and sponsored the first oral vaccine vial trials, large vaccine trials in the United States. The Sabin trials in Dade County in, I believe '61, '62, somewhere in there.

But first, Dr. Eugene Flipse was the man, and so I was attached to him in preventive medicine, but spent six months in pediatric infectious disease and six months in adult infectious disease. And got to know those guys because I was unique and funny and

²¹The US Public Health Service is the primary division of the United States Department of Health and Human Services.

treated by them as a fellow. And I messed around with their formal fellows, the guys that had all the knowledge. I was privileged to be in their company, all of the talent.

CM: But that satisfied the requirements for your internship, to do that, so you didn't really have to go. So you were still able, once again, to turn the system to focus on what you wanted it to focus on.

CP: That's right, that's right, that's right. And it did. And it all did very well. Didn't get to go to the London School of Tropical Medicine, which was a part of the original plan, because something called St. Louis encephalitis²² happened to jump onto Florida. And the bosses that be, namely, Dr. Wilson T. Sowder²³, in the interim, the state board of health has now appointed me state epidemiologist.

I have arrived, and I wasn't even—I was still in training, but I was formally appointed by the board of health to the position of state epidemiologist some two years before I actually returned to Jacksonville and assumed the formal position.

CM: So, you actually got to your goal of being state epidemiologist for Florida a couple of years ahead of your timeline.

CP: Yes and no. And I've never really understood that. I don't know whether it's politics, or if somebody else wanted a job—I don't know how come, but I was called by Doctor Sowder's secretary one day.

I think I was doing my residency, and I was a resident at the Hillsborough County Health Department in Tampa, by the way, which was formally approved by the American Board of Preventive Medicine for providing preventive medical residence. And it was a marvelous year.

But I was just called by her one day and said that Doctor Sowder wanted me to know that the board, yesterday afternoon, had appointed me state epidemiologist, and that the

²²St. Louis encephalitis is a virus transmitted to humans by the bite of an infected mosquito.

²3Dr. Wilson T. Sowder was a prominent figure in Florida's public health system for over 30 years. Under his tenure as a Florida state health officer, he developed health departments in each of Florida's counties. There is an interview between Dr. Prather and Dr. Sowder in the USF College of Public Health Oral History Project collection.

president of the board would get me a letter off in due course, letting me know. And as soon as I could get back to Jacksonville, they would be glad to have me.

CM: Boy, isn't that something? That's quite an amazing story.

CP: But I came back to Jacksonville prematurely. I may have just knew that I was the formal state epidemiologist, but I lived somewhere else. And had nothing to do and was making preparations—literally, my family and I, we're now one wife and two children—to go to London for a year, to the London School of Tropical Medicine.

When the system, I don't think Doctor Sowder called me. I don't remember—a Doctor Sharp, Dr. Clarence Sharp, called me to tell me about the encephalitis. But I was following the encephalitis in the newspaper and knew about all of that in Hillsborough and St. Petersburg and Pinellas County. And Doctor Sowder wanted me to come home to take up leadership for the state's position about the St. Louis encephalitis in St. Petersburg.

And how quickly could I make arrangements to get to Jacksonville? I was planning to go to London, and they recognized all that. Well, maybe after this crisis is over, you can pick that back up. Because this was a part of the five-year development grant in the National Institutes of Health we're doing, and we had to do annual reports and periodic reports on all of that.

Interestingly, I only know the whereabouts of one other of those five scholars, who, just as an aside, did not stay in public health but became, in reasonable time after all this was over, professor and chair of obstetrics gynecology at the Pittsburgh School of Medicine.

CM: Who was that?

CP: Dr. Willa Dean Lowery.

CM: Oh, is that right?

CP: She was probably retired before your time, though.

CM: I have an old book from McGee, and I think she was one of the authors.

CP: Outstanding lady. Outstanding lady. And why didn't she stay in public health, I'll never understand because she had good talk; she had good public health talk. But we stayed in correspondence, Willa Dean and I, for a good while afterwards. But that brings us to the position of state epidemiologist.

But that's not the epitome. I considered the epitome of my career was the day that I was elected president of the National Organization of State Epidemiologists. I had arrived. I was there. Let's take a break.

CM: Yeah, let's stop there.

CP: And maybe one day, we'll resume.

CM: Oh, no, we will. I'll make it—

End of Interview