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Interview with Anna Steinberger

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TEXAS MEDICAL CENTER
WOMEN'S HISTORY PROJECT

Anna Steinberger, Ph.D.

Interviewed by: Natalie Garza
Date: February 8, 2013
Transcribed by: Michelle Kokes
Location: Anna Steinberger's home

NG: This is Natalie Garza and I am interviewing Dr. Anna Steinberger on February 8, 2013 in her home on Hermann Drive. Can you begin by telling me what your full name is?

AS: Anna Steinberger.

NG: And do you have a maiden name?

AS: My maiden name was Schneider.

NG: Okay. Where were you born?

AS: I was born in Radom a city South of Warsaw, Poland. It was known for its gun factory so most gun collectors have at least one gun that was manufactured in Radom. It was a city of medium size. I don't know exactly what was the population but it was a nice city. Of course we did not have any high rises like we do in Houston. I think the tallest building I remember had about four stories and I lived in one that had three stories.

NG: Would you describe it as urban or rural?

AS: Definitely urban, yes definitely urban.

NG: Okay and when were you born?

AS: January 1, 1928. I was a New Year's baby.

NG: Can you tell me (I know you had a brother) did you have any other siblings?

AS: No my parents always just had the two children. My brother was five years older than I was.

NG: And were there any expectations of you as you were growing up about what you would do as an adult?

AS: Since early childhood my parents encouraged me to read a lot, and I read a lot about Maria Curie who was also born in Poland. She was always my hero. So since the age of about 7yrs I knew that I wanted to become a researcher and hopefully win a couple of Nobel Prizes the way she did. Unfortunately that did not materialize, at least not yet. But she was my idol and so I always knew that I wanted to be in the research field.

NG: Did you get encouragement from your parents to do that?

AS: They always encouraged me to read and to educate myself but at that time, before the war in Poland, not too many girls were really dreaming about finishing university and getting a degree. I don't think they were thinking that far ahead. No, the tradition was the young girls just gets married and has a family. So I'm sure that this is what they visualized for me. Of course the war got in the way and things changed.

NG: Right. For yourself though did you know that you were going to go to school?

AS: Pretty much so, yes. Like I say I could not visualize myself as an adult doing anything else but to try to discover things. To me that was my main goal in life, yes.

NG: So you were still in grade school when the war broke out?

AS: I was 11 years old and had finished the 6th grade when the war broke out, as you know on September 1, 1939. It was actually the first day of school so I had new books, a new backpack and new clothes, and I was all excited getting ready to go to school. Instead the bombs started falling and buildings were burning and collapsing and instead

of going to school my mother gathered me and my five year old brother named Jacob and we hid in a cellar that was the place where we kept coal, wood, fire wood, potatoes and some other supplies. And we were just sitting there hoping and praying that our building would not be hit. When things subsided and quieted down we'd go back to our apartment only to run back to the basement about ½ hour or an hour later because every single day there would be about 12 such air raids. Our building was actually hit by a bomb. There was a fire but our apartment was not damaged. We lived on the ground floor, but I could see the fire on the third level. So this kind of repeated itself until about the 3rd or 4th day of the war (I can't remember exactly) my uncle, who was a country doctor, came in the middle of the night with 2 horses and a buggy covered with straw and told us just to get dressed as there was no time to pack anything. I remember being so bundled up with one dress on top of the other, one sweater on top of the other that I could barely move. We just all piled up on the wagon. There were 8 of us my aunt and uncle, their son (my brother's age) my family and also my grandma. My grandpa passed away just a few months earlier, so he missed all that fun! And where do we go? Danger was coming from the West and the natural reaction was to go in the opposite direction. So we were just heading East. We had no family in eastern Poland. We did not know anybody in eastern Poland but, like I said, this was just a natural reaction.

The problem was that first of all Polish roads in 1939 were not like 610 loop or highway 10 here in Houston. They were mostly mud roads or just very rough cobble stone roads full of pot holes so the horses had real trouble pulling the wagon. The roads were also very crowded with a lot of people who were running away from the German

army. Also the Polish military was using much of the roads. So there was a lot of crowding and a lot of commotion.

In addition the German airplanes, the Messerschmitts would lower themselves as low as this ceiling and machine gun the soldiers and the people that were trying to run away. My father was injured in his left arm but my uncle being a physician was able to kind of stop the bleeding and at least provide first aid. If there were bushes along the road then we could get off the wagon and maybe hide in the bushes. But many times there were just open fields and there was really no place to hide. So we just hoped and prayed that we're not going to be killed along the way. They did kill one of our horses and I think we were on the road for maybe two days and two nights. Again, I don't remember exactly. We were obviously making very slow progress and after they killed one of our horses the poor lonely horse could no longer pull the wagon very easily.

So we just stopped in eastern Poland, it's part of the Ukraine, at a place called Rovno. It was just a small rural community. We found a deserted farmer's house and we just kind of moved in. They actually left some bedding and some pots and pans and they never came back. We thought if they come back we'll just beg them to allow us to stay with them until we figure out what to do. They actually had a little garden in the back of the house. There were still some potatoes and some vegetables as I recall. I remember my mom and grandma collected some things for us to eat. We expected the Germans to catch up with us any moment because we heard rumors from the retreating Polish army that the Germans are advancing very rapidly and occupying Poland but instead one beautiful morning my father said, "I hear Russian spoken! What in the world are the Russian's doing here?"

Of course we had no idea that Stalin and Hitler made an agreement to divide Poland and as the Russian armies came into Rovno they were singing songs, give us some bread and some sugar, and they told us that we are safe now that no German soldiers will come here. They also asked us if we wanted to become Russian citizens or go back home. They gave us the choice. My mother wanted to go back home because she forgot to pick up any photographs. And how can you live without having photographs of the children? My father said, "No way, we aren't going back because the Germans probably occupied Radom by now, and we don't want to go back to the Germans after successfully running away from them. So my father says, "Yes we will accept Russian citizenship." So, a few days later the Russian officials told us to pack up whatever few belongings we had, and to show up at the railroad station. And then by cargo trains or cattle trains (whatever you call them) they moved us further east. They did not tell us where we are going. When we asked they just said, "We don't know, we just evacuating you away from the front lines."

My uncle chose to stay in Rovno and take care of the patients in the local hospital. The rumors later had it that in 1941, when Germany declared war on the Soviet Union and the German army was advancing further east, my uncle actually committed suicide as did my grandma and my aunt. My cousin was able to escape and ended up in Paris, France. We did communicate with him after the war but never were able to get all the facts about the Germans entering the hospital where my uncle worked and how my uncle and other family members died..... So, we never saw them again....and the man who saved our life sacrificed his own...

NG: Well so then much of your education up until undergrad was in Russia then; in Soviet Russia?

AS: We traveled for some days in cattle trains. Many times the train would stop at a rail road station, and we had no idea how long we were going to be there. Sometimes we were told to change trains, and in between had to sleep on the ground of the rail road station. Finally we made it to a collective farm *kolkhoz* near Stalingrad. There was a one room school where children from the 1st grade up to the 6th grade were all studying in the same room, and I was placed with the very young group because I did not know how to speak Russian. So, I was often helping the teacher change diapers on some of the youngest students. I learned Russian fairly rapidly and quickly moved up to my own grade level. We stayed on this collective farm for about a year. My father and brother had to work in the fields burning chafe and would come home at the end of the day covered with black smoke! Before the war, my father was a tailor and my mother was a seamstress. So, she would fix some clothes for the local ladies in exchange for a few eggs or a chicken to supplement our skimpy diet of coupon rationed bread and other foods.

After about a year my father appealed to the authorities and we were allowed to move to Stalingrad where both parents worked in a clothes factory and my brother and I went to school. We were given a one room apartment with electricity and a bathroom down the hall. This was a major progress from the living conditions in the *kolkhoz*! We lived in Stalingrad until the end of 1941 when the German armies rapidly advanced and were near Moscow, Leningrad and Stalingrad. We were told again to pack up a few belongings and show up at the rail road station. We were only allowed to take one bag each. We were being transported further east, and again travelled for a couple of weeks

by cattle trains to a city called Alma Ata, which at that time was the capital of the Kazakh Republic. To this day I have no idea why they moved us from Stalingrad to Alma Ata. Was it because they did not trust us to be so close to the front line? Was it because they needed workers away from the front line to support the war effort? My brother was, in fact, drafted to the Russian army before we left Stalingrad, and for about four years, until 1946 we had no idea whether he was dead or alive until we received a letter from the International Red Cross that my brother was looking for the Schneider family, his family. The IRC located us in Alma Ata! So that's when we found out that he was injured but has survived the war and was now living in Warsaw, Poland.

NG: So were you going to school in Alma Ata?

AS: Yes. According to the Russian system, you go through 10 grades of public schooling and then, immediately (if you so choose) after passing a special exam can go directly into medical school, or law school, or whatever other direction you choose. So I started medical school in Alma Ata and studied there for almost one year. But at the end of 1946 the Russian officials gave us a choice to either remain as Soviet citizens or return home to Poland. We obviously wanted to go back to Poland because communication was very poor in those days, and we wanted to find out if any of our family members have survived the war. So again we went by cattle train, for several weeks all the way from Alma Ata back to Radom. Sadly, we learned that ALL our family members perished during the Holocaust. So we did not want to remain in Poland.

We lived in Poland only a few months and then illegally crossed several borders to end up in the American occupied zone of Germany. My parents stayed in a DP (Displaced Persons) camp for three and a half years before we were granted visas to

immigrate to United States. During that time I continued my medical studies in Frankfurt AM and, of course, had to learn quickly to speak German! So, I was faced with another foreign language. Most German professors denied knowing anything about the atrocities perpetrated during the Holocaust, particularly against the Jewish people in the concentration camps. They claimed they didn't hear anything, didn't smell anything and had no idea what was going on. But there was one German professor who offered to tutor for free me and my boyfriend, whom I met in Alma Ata and who turned out to be my future husband. So for a homemade meal (he liked my cooking) he would tutor us in both the German language and the medical subjects since we couldn't really understand well. Anatomy, histology and chemistry were easier to follow because the language was not as critical for those subjects. But when it came to biology and some other topics it was pretty tough to follow.

I met my future husband, Emil, in Alma Ata when we were about 15 years old. He was attending a boys school and I was going to a girls school but our parents belonged to a club of people from Poland that used to get together for various activities. We went to concerts, opera, dances, etc. We were literally starving from '39 until the end of the war, until '46 actually. Everything was rationed and very difficult to obtain. We would key up at the store when the word got around that there would be some flour or bread or sugar, but by the time the store would open everything was gone through the back door due to corruption. Even with the ration coupons it was very difficult to get food supplies; so one just had to make ends meet as best as one could. The only positive thing during that time for us was that the best ballet and concert performers that fled from Moscow, Leningrad and Stalingrad ended up in Alma Ata. Somehow Alma Ata

became the artistic focus for all kind of fabulous performances! So, while we didn't have enough food, Emil and I saw every ballet and every opera many times over because the ticket to the opera was only one ruble while a loaf of bread on the black market was about 300 rubles. So we could afford the theater but not the bread! I have fond memories to this day of the fabulous performances in Alma Ata that cultivated my love for the ballet, the opera and classical music.

I was in Germany from 1946 until 1949 about a little over 3 years and food was already plentiful. We were getting care packages from the United States. Many Jewish and other organizations were sending supplies so life was pretty comfortable and of course our lives were no longer threatened. The only difficulty was that we had no idea how long it would take for us to obtain visas for immigrating to the United States. Why the United States? There was a lot of propaganda by Jewish organizations to go to Palestine and many people went to Palestine. But my mother had a sister who fled from France with her family and was now living in New York City. She was very eager to be reunited with her sister, but it took about three and a half years for this to happen! I did not finish my medical studies in Frankfurt because once the visas became reality there was no question that we would not delay our departure for another day! When we arrived in the port of New York, Emil met us. His visa was granted one year earlier so, as an 19 year old boy, he came to the United States by himself .

NG: Without family or anything?

AS: I sailed on the same ship with my parents and his parents one year later.

NG: Okay.

AS: So by then he was already Americanized. He already spoke a little English. All I could say in English was, “Okay” and of course my aunt and Emil said, “Don’t say okay unless you understand what you are agreeing to.” So now I had to learn English fairly rapidly.

NG: I want to ask really quickly in medical school in Germany were there many women there?

AS: No. As a matter of fact I was the only woman with 80 males in the class.

NG: So how did you deal with that?

AS: It was not easy. Of course there was always some kidding going on, particularly during anatomy and dissection classes. But I always managed to stand my own ground, and after a while they respected me as just another student. I was a pretty good student and managed to get good grades so it was okay. Emil and I were pretty much hanging out together. We lived close to each other and often studied together and took the trolley to the medical school, then had to walk a little distance

NG: Were there many Jewish students?

AS: As I recall there were a few more Jewish students besides Emil and me in the school at that time. I don’t recall seeing too many women, but there were 2-3 Jewish women students in other classes.

How we got into medical school was an interesting story. Emil’s parents were dentists. His mother studied dentistry in Berlin and spoke German fluently. Emil was born in Berlin but when he was just a child the family moved to Poland, so did not speak much German, except for a few words. So his mother got us admitted to the medical school by charming the Dean and his secretary. She told the Dean that we are so brilliant

that we will learn German in 2- 3 weeks, and even though the semester has already started, we will catch up easily. The fact that Emil and I were only 11 months apart in age and had different last names was also questioned because she said that we were both her children. She explained, “Oh well I divorced my husband, remarried and immediately had another child.” Talking about trying to survive no matter what methods were used: whether it was getting food or gaining entrance to the school! So the dean eventually agreed for us to enter the class. Of course it was very difficult for us: we had to work very, very hard to catch up!

NG: How did you end up in Iowa for graduate school?

AS: When I arrived in New York and was trying to learn English as rapidly as possible, I also got a job at Maimonides Hospital in Brooklyn doing some laboratory work as I was well familiar with blood analysis, urine analysis, etc. I couldn't speak English well but I knew how to use the microscope so I was able to get the job, as I recall for \$21 a week. I was happy to be among English speaking people and there was one Italian girl that was tutoring me in English. About a year later Emil got an offer to go to Iowa City as research assistant to a professor at University of Iowa, whom he met at Maimonides Hospital and who was a friend of a doctor at Maimonides Hospital with whom Emil already was doing some research. So, Emil went to Iowa City and came back only for us to get married on December 24, 1950. We then lived in Iowa City where he continued his medical studies and research in the Department of Anatomy and I became a graduate student and laboratory assistant in the Department of Microbiology. In 1955 Emil graduated with an M.D. degree. I received MS degree in Bacteriology and Virology in 1952. But, as we were parents of two daughters, and needed more income, I

interrupted my studies in order to become gainfully employed in the university *diagnostic* bacteriology laboratory. I was still struggling with the English language, particularly with some colloquial expressions. One time a doctor called for a laboratory result on one of his patients. I don't remember the patient's name but let's assume it was Mary Jones, so to make sure I asked, "Did you say Mary Jones doctor?" And he replied, "Roger." Then I said, "Oh Mary Roger." He said, "No Mary Jones." Then I said, "Well doctor is it Mary Jones or Mary Roger?" Of course I had no idea what "Roger" meant!

NG: Yes.

AS: This doctor called my supervisor and complained about this person working in the laboratory that doesn't understand English. Of course my boss came to my defense and explained that I was a newcomer and didn't know English well, thus did not understand what "Roger" meant. The complaining doctor apologized and everything was okay. I did not lose my job! After Emil graduated medical school we moved to Detroit for his internship at Detroit Receiving Hospital and I worked one year at Park Davis virology laboratory as I had extensive experience in this area. Emil then volunteered for service in the Navy. He said: "This will be a small way for me to repay this country for giving me a second chance in life". After he completed the basic training he was stationed in Bethesda, Maryland so we all lived in Bethesda, Maryland for two years. During 1956-1958 he was assigned to the Naval Medical Research Institute (NMRI) where he was in charge of research. I did not have to work during these two years and just enjoyed spending time with my two girls that were 5 and 3 years old years old. I used to take them ice skating or to Washington D.C. to visit the White House and see the cherry blossoms. Life was good! I also attended some lectures at the National Institute of

Health (NIH). In 1958 we returned to Detroit for Emil's residency training at Detroit Receiving Hospital and I went back to work at Park Davis virology laboratory for about two years. I attended Wayne State University for about one year and a half and in 1961 received my Ph.D. degree in Microbiology and Immunology. By living very close to the university, I was able to do experiments during the day and night, so one year and a half for a Ph. D. degree was a record time!

NG: Will you describe what your research was at that time?

AS: My Ph.D. thesis dealt with cellular resistance to Vaccinia virus. My supervising professor was a well known virologist, Dr. McKee. He was well known for discovering the virus of the 1917 flu epidemic. He and a graduate student went to Alaska and recovered the virus from some of the frozen bodies. In 1961 we moved to Philadelphia and we both worked at Albert Einstein Research Institute, Division of Endocrinology and Reproduction, and were on the faculty of University of Pennsylvania. For the first time we felt very wealthy! In 1971 we were both recruited to the faculty of the newly established University of Texas Medical School in Houston (UTMS-Houston) that was approved by Texas legislature in 1969. Joining this new venture was one of the best decisions we have made! It was a most exciting and productive time of our academic careers!

NG: When I was watching the interview you did a while back...

AS: With whom was the interview?

NG: I can't remember it was for that book...

AS: Oh yes, yes the book "Conversation with a Medical School"

NG: One of the things that you all talked about was the Sertoli?

AS: Yes the Sertoli cells..

NG: When did you begin working on that?

AS: Okay my husband was always interested in reproductive medicine and reproductive biology, fields that dealt with the reproductive disorders in both male and female. I was trained as a microbiologist /virologist/ biochemist, but we wanted to find some common grounds where we could collaborate in our research. So I switched to reproductive biology using a many of the techniques that I learned from my virology work like tissue culture techniques, organ culture, cell culture... in other words in vitro models that could be used to investigate some reproductive biology problems. The approaches that I chose were to reproduce the entire process of spermatogenesis (that is the process of sperm production) in a Petri dish using cultures of rat testicular tissues. So The Sertoli cells are the major somatic cells in the testes that support gametogenesis, the formation of spermatozoa.

It's hard to explain all the details, but I developed a method for growing young rat Sertoli cells in the Petri dish and add some other cells to it to see if the Sertoli cells would support the formation of spermatozoa. It was also a question of how do the Sertoli cells function and how that function is regulated because these cells stop dividing after a certain period of time but continue to support the process of spermatogenesis. This is what I intended to study. We also discovered that the Sertoli cells themselves secrete a hormone called inhibin which exerts negative feedback on the pituitary gland in vivo, to regulate the production of gonadotrophins, LH and FSH which are the two key hormones involved with spermatogenesis. I know this explanation is in a very simple form. So

Emil and I were able to collaborate in this basic research trying to clarify some of these processes. Emil was also seeing patients and was conducting a lot of clinical research.

NG: Is this work that you all were doing in Philadelphia?

AS: We started it in Philadelphia but most of this work was done in Houston.

NG: Okay. And do you know why it was that he had so much interest in reproductive biology?

AS: Actually he coined the terms “couples infertility” and “reproductive medicine”. Because he felt that in every medical specialty there are two different approaches: there is a cardiologist and a cardiac surgeon. There’s a pulmonologist and a pulmonary surgeon, but in the field of reproduction there was no medical specialty. When the male had a reproductive problem he would go to urologist and female with a problem would go to a gynecologist. There was no medical specialty that took care of the couple. He felt that infertility was basically a couple’s problem depending on the fertility potential of the male and female. It had to be the right match. Male with low fertility potential and a female with a high fertility potential might still produce a child. But when they both have low fertility potential then one or both may need to be treated. So he wanted to develop a medical specialty so that the same physician would analyze the couple’s problem rather than each being seen by a different physician that often did not communicate with each other.

NG: So when you all were getting recruited by UT you had a lot of prominence already in your fields. Was it because of this kind of innovative way of looking at reproduction?

AS: That's right. Emil was chairing a department at the Albert Einstein Medical Center in Philadelphia. When we came here Emil was specifically recruited to start a Department of Reproductive Medicine and Biology. I was in the biology part, so to speak, since I did not have the MD degree; I did basic laboratory research and teaching.

NG: When you came to UT was your work very much mixed still of research and teaching?

AS: Very much so yes.

NG: You didn't have one that was more responsibility than the other?

AS: I would say it was predominantly research but teaching was always an important part of my activities. We taught a course in reproductive biology with clinical examples. Dean Cheves McCord Smythe was interested in that kind of teaching. But in the early years they were not called departments but programs. We had approximately 10 faculty members, some clinicians (M.D.'s) and some Ph.D.'s, with basic and clinical research in male and female reproductive areas.

NG: Okay. Were there other women that were on the faculty at UT at that time?

AS: When we came to the medical school there was one woman faculty, I believe in the Department of Surgery, Benjy Brooks, MD. The Department of Reproductive Medicine and Biology always had women faculty. Barbara Sanborn, Ph.D. and Y-H Tsai, Ph.D. did research in uterine biology and Mridula Chowdhury, Ph.D. investigated testicular functions. Dr. Sanborn later became chair person at the University of Colorado. Other departments started hiring women but there were very few.

NG: Now when you came into UT you were given tenure, it looks like tenure upon hire?

AS: Yes, in our case. I came in as associate professor with tenure.

NG: Okay.

AS: The problem was that my husband being my chairman was holding back as far as my salary or promotion was concerned, even though I had excellent NIH funding for my research and many publications, in order not to make other faculty members feel that there is favoritism. But the Dean intervened and took over decisions regarding my salary level and promotion resulting in increased salary and faster promotion!

NG: Now do you find that at that time (and even today) that women are being promoted at the same rate as men to full professor?

AS: Well I think things have gotten considerably better. We did have a woman faculty organization and I remember going to the president of the Health Science Center with a list of men faculty salaries and female faculty with comparable backgrounds and responsibilities showing the difference in salaries was incredibly large. He did make a lot of adjustment for women's salaries. So this organization was quite effective in fighting for women's rights. The school was fairly responsive I must say. In fact as long as we didn't complain things didn't happen but once we started complaining a lot of the salaries were adjusted. I remember there was one female biochemist who got an incredible increase in her salary because she was so under paid.

I should also mention that I retired from research and teaching in 1994 and then went back about a year later as half time Assistant Dean for Faculty Affairs. The Office of Faculty Affairs (it was a brand new office) implemented a mentoring program. Also we often interviewed prospective new faculty members advising them, particularly women, not to accept the salary that is being offered before they checked in the library

for records of other faculty salaries with similar background, to make sure that the salary they accept will be comparable. We advise them not to just agree to whatever was offered but to make sure that they were properly compensated. I feel that I've done much for women faculty and faculty in general. Also the mentoring program was very helpful for junior faculty. They were assigned a mentor, who was advising them and acquainting them with the Texas ways of doing things because some of the new faculty members were from the northeast or west, or other places. It was a very successful program that I hope, is continuing.

NG: In this interview that you did a while back one of the things that you mentioned was that your husband was extremely supportive of you?

AS: Very much so.

NG: And do you think that was unusual at the time?

AS: It may have been somewhat unusual which I think why I loved him so much! But throughout our life his belief was that a woman's brain should not be wasted. He recognized that I had a capacity for research and creative thinking. He also felt that if something happened to him and I was left with two small children, I couldn't manage financially unless I had proper education and I could have a job with a decent salary. So instead of buying more life insurance he felt that a much better investment was to encourage me, no matter how difficult it was (and it was difficult as we had two children and I had to work!). When I worked at Park Davis, he was very supportive both at home caring for the kids and making sure that eventually I got my Ph.D. degree. I mean we had to manipulate things a little bit but eventually he insisted that I go back to school and

get my Ph.D. degree. So yes it helped a lot to have his support in education but also in home responsibilities.

NG: During the time that you all were in Philadelphia, that was kind of the height in the United States of a lot of social movements, the Civil Rights Movement and the Women's Movement, were you cognizant of that? Did it have any impact on you or were you too busy with work?

AS: I think I was too busy trying to improve my command of English, which is far from perfect even today, raising the two girls, and keeping a happy home and we tried to have a little fun as well. We worked hard but also tried to do a little skiing in the winter time and, when we lived in Philadelphia, we acquired a little boat, a 13 foot dingy. We would pack a picnic lunch, put the girls in the dingy, and sail across the Schuylkill River. That was our major journey to the other shore, have a little picnic there, then sail back home. So we had a very full life. It was hard but we were very happy and very optimistic. We always knew that tomorrow will be better. We never dwelled on the difficulties; always looked ahead preparing for a better future. That helps to overcome a lot of the adversities.

At University of Iowa, Emil actually completed all requirements for an M.D. and Ph.D. degrees but they did not grant two degrees at the same graduation. He would have to come back a few months later to get his Ph.D. degree and of course this was not possible because he started his internship and there was no way he could take time off. He even got the Borden Award for his research at graduation. Later he actually tried to get the Ph.D. diploma, but this did not happen. I don't think it really mattered as he became a world renowned physician and scientist!

In fact, I should mention this, I can't hold this back. He passed away four years ago and will be honored on February 25th in Melbourne, Australia at an International Congress of Andrology. He and I were instrumental in establishing in 1974 the American Society of Andrology for the purpose of better communication between basic researchers and clinicians in that field. Andrology is for the male what gynecology is for the female. The society also published the *American Journal of Andrology* which has now merged with another journal and is called *Andrology*.

NG: How did you find the culture of the Texas Medical Center? I guess in comparison to Philadelphia?

AS: First of all we found Texas and its people much friendlier than the people in Philadelphia or New York. We arrived by car in our new home in Houston (we drove with our plants and our dog) but our furniture was to arrive a few days later. After we moved in to our house in the Memorial area our neighbors must have noticed that there was no van unloading any furniture. So one of our neighbors came over that same day and said, "I'm your neighbor, I came over to introduce myself. My husband and I are going to our ranch, so here is the key to my house. It's right next door to you and I want you to stay in my house until your furniture arrives, and there's some juice and milk in the refrigerator for you to enjoy." Nobody, but nobody would ever do this in New York or in Philadelphia! We were shocked and pleasantly surprised by this unexpected, warm welcome! We thought, "We came to the right place! If Texans can do that then we are definitely in the right place".

When we came to UTMS-Houston we were among the first faculty members recruited by dean Cheves Smythe, and housed in temporary facility in the Shamrock

Hotel (no longer in existence). The medical school building was not completed until nearly two years later. We would meet in the hotel, the library or in somebody's house to plan the curriculum, recruit new faculty, etc. We were involved in developing the school from the ground up, and that was very exciting! Now talking about women faculty can I give you another anecdote?

NG: Sure.

AS: I thought I might get fired about 2 or 3 months after we arrived here. Dean Smythe spoke with a Southern, like South Carolina accent and I had difficulty understanding him. He would talk to me for about half an hour and ask, "Anna will you do it?" And timidly I would say, "Well would you mind repeating it once again?" Also at one of the meetings when there were about 12 people present and I was the only woman, Dr. Smythe said, "Well gentleman the hour is late... Gentleman we must make the decisions and are there any final comments or questions?" I raised my hand and said, "Sir not every person in the room is a man and certainly not every man in this room is a gentleman!" We became good friends after that. I stood my ground but thought, "Oh my God what what did I just say? I'm going to get fired!" But everybody applauded.

NG: Apart from the issues of pay that you mentioned before did you find that as a woman throughout your career here did you face any kind of prejudices or obstacles because you are a woman or that you felt because you are a woman?

AS: To be perfectly honest I personally never did. I always kind of felt like I was holding my own. I went to medical school mostly with men. When I came to Houston there were mostly men. In Philadelphia there were mostly men. I think there was one other woman on the faculty at the Albert Einstein Medical Center. I always felt I'm just

doing my research and I'm going to meetings and I present my data but every once in a while when I would be at a meeting where people did not meet me personally before and Emil would say, "This is my wife Dr. Anna Steinberger." They would say, "That's Dr. Anna Steinberger? She's too pretty to be a smart scientist!" I didn't know whether to take it as an insult or as a compliment. It's like, "What is a scientist supposed to be ugly or if you are good looking you have no brains or what is the problem?" This kind of comment I would face in England or in Germany ... when they never met me personally. Most Americans already kind of knew me.

At the medical school in Texas yes there were discrepancies in salaries, yes I don't think women were hired as readily because, "What if she gets pregnant." I had trouble getting into graduate school at Wayne State University, I'm just trying to remember we are talking about 1959 so how old was I in 1959? I was born in '28 so in '59 I was 31 years old. So I was older than the average graduate student applicant and I was a woman and I had a little trouble getting into graduate school even though I had a good record. I worked at Park Davis, I had a good recommendations but "How serious are you about getting your Ph.D. degree? And are you planning on having any more children and would that keep you away from doing your graduate work?" I would say, "I'm already married. I already have two children. I don't plan to have any more children and I promise you if I ever get pregnant again I'll let you know."

I just I never let them get away with these remarks. You have to hold your own in a firm but diplomatic way and yeah Dr. McKee admitted me, and when he was handing me my Ph.D. diploma he said, "When I admitted you I guess that was the best decision I ever made in my life!" I said, "Well that's not what you told me then! You were very

concerned.” But like I said there were just these cutesie comments, “Oh my goodness she is too pretty to be a scientist.” “Alright thanks for the compliment!”

NG: I want to ask now a little bit about this idea of balancing work and family. Do you feel that, that’s a question that mostly women get and we don’t ever ask men you know, “How do you do it all? How do you have a family and work?”

AS: Right, well like I said if you have a supporting spouse that is really the key answer. When we lived in Iowa City on a very tight budget and despite being a graduate student and a medical student at least twice a week Emil would go fishing so we would have enough food. And you know fish is healthy and it helped with our finances. He also helped at home. So having the support of spouse is really the key issue. A man cannot be pregnant or deliver a baby. I mean we haven’t figured that one out yet but once the baby is born I think men have to get off their high pedestal, and changing a diaper is not minimizing their masculinity or diminishing their macho image, the other way around.

Emil used to take care of the 2 a.m. feeding always so I could get a little sleep. I would wake up in the middle of the night and there was the baby in his lap with his book open he would be studying with a bottle in the baby’s ear, not paying much attention. But he would take care of the 2 a.m. feeding. If I would have to get up then obviously it would have been much harder. It’s very important to build them up with the idea that they’re equal partners. Sure I carried the baby for 9 months. There’s just no other way but once the baby is born it’s your baby as much as my baby. Maybe you cannot breastfeed it but you can give it a bottle, that’s for sure. And this is really the key issue.

As a society we have to keep emphasizing that it's not degrading for the man to be a good father and a loving husband and just help 50/50.

NG: What about when both of you were working full time? How were you able to handle that with your daughters being young and all of that?

AS: We always had very good babysitters. And another thing I didn't mention, I had a job where I would go to the lab at 5:00 in the morning so that I would finish earlier in the day, so we needed a babysitter for fewer hours so we could afford it. You know you just have to manipulate your life. But I also have to say that American young people basically are very spoiled. I see it in my own two daughters. When you go through the war and you are starving for 6 years you have a totally different perspective on life. When I got up in the morning I didn't have to choose my clothes. I had one pair of shoes one skirt and one blouse. Maybe we were much better adapted to handling difficult situations because no matter what was happening to us in the United States it was so much better than what we went through already. So maybe we were better equipped to cope and you don't need to have a four room apartment or a two bedroom apartment, you can manage very well with much less.

My older daughter slept in a dresser drawer for the first two months until we could afford a crib; nothing wrong with that. Did she suffer? No. Did we suffer? No we knew it was temporary. When she was born, we didn't have a crib. We eventually acquired a crib so our second one already had a crib but the first one slept in a dresser drawer. I just emptied out a drawer and that was her little bed. Would American parents do it? I mean they would feel so horrible. They would feel like they are so deprived because they don't have a fancy carriage or a fancy...It never even crossed my mind.

Going through some hardships sometimes is a good thing for later life. So let's see what else can I tell you about women? As a society you know we've come a long way. We've come a long way. Many women now have key positions in the corporate world and at this medical school the atmosphere was, at least as I recall it, was very friendly. It was a new school we were building it together and everybody was quite cooperative.

NG: What do you think have been your most important contributions to science and then to the medical center in general?

AS: To the medical center, well being here from the ground up. Teaching, I think I was a good teacher. My major research contributions were to develop in vitro models for studying the process of spermatogenesis. In fact, last year I received a wonderful letter from Japan. Do you know what I'm talking about? Are you married?

NG: Yes.

AS: Okay so you know about spermatozoa, right? I never got wiggling spermatozoa in the Petri dish but the Japanese scientists, using my method did! I used rat tissues and they used mouse, in which this process is much shorter, and they succeeded! These spermatozoa were used to fertilize female mice that resulted in healthy litters! I was so thrilled to read about it! They gave me full credit when referring to my method in their publications and sent me reprints of this work. So my major research contributions included developing the in vitro models and prove that the hormone inhibin (we knew there was inhibin but didn't know which cells in the testes produced it) was produced by the Sertoli cells. I will show you a framed painting I received from my colleagues when I retired from the medical school. It is a three dimensional model of the Sertoli cell. So I'm best known for my studies on the function and regulation of the Sertoli cells.

NG: You've received several honors and awards, is there anything that stands out to you as particularly meaningful or significant to you?

AS: There were quite a few I can't even tell you exactly. Can I bring something in writing? My awards...

NG: Well I have... do you want to see them or do you just want to include it? Because I will include your CV with the interview.

AS: You will include?

NG: Yes.

AS: Does it say something that I am now a commissioner at the Texas Holocaust and Genocide? I'm not sure I added that to my CV or not.

NG: No but I wanted to talk to you about that as well.

AS: You know the research awards were very, very important. They assured my continuous grant support. I was well supported by the NIH grants. I had grants also from the March of Dimes and other foundations... but getting the awards also gives you assurance that you are on the right track and make it easier to get research funds. But I think the awards that I was most proud of were the ones that I received for mentoring women. I felt I have encouraged many other women to pursue academic careers despite of having a family. You can do it all! It's not easy but you can do it. You can have it all. So probably these were the award that I'm most proud of.

NG: What do you see as the future for women in medicine and in science?

AS: Well I have to tell you that when I lived during WWII in the Soviet Union (which incidentally collapsed in '91) about 80% of physicians were women and a lot of researchers in the medical and other fields were women. Medicine was almost considered

a woman's profession, and it is very useful for women to be a physician even in raising her own family and maintaining her own health. This country was a little bit lagging. I don't know what the composition of the current medical class is but it's certainly close to 50/50 women. So I think women have a great future in the medical and other research fields as men tend to go more into computers and engineering. I think the field is wide open and I happen to think that medicine is a very good field for women to go into.

NG: Now you said you retired fully in 2002.

AS: Yeah January 2002.

NG: So what has kept you busy since then?

AS: I think after I retired from the medical school I became busier than I was when I was working full time because when I was working full time there were always secretaries to do certain tasks and particularly for the 7 years that I was Assistant Dean for Faculty Affairs. There were always several secretaries to do different things. Once I retired I was faced with having to do everything by myself. I have to type my own letters and I had to do library searches by myself. I didn't have the support of the secretaries.

One reason why I decided to retire was that my husband retired a year earlier and was busy writing books. He actually wrote three books based on his life during the Second World War and after the war. Another reason for my retirement was that I wanted to be more active at the Holocaust Museum in Houston which opened a few years earlier. So I continue teaching a lot, except now I teach about the Holocaust and other genocides and how I survived the war and how important it is to learn the lessons from the Holocaust and other genocides in order to prevent other genocides from happening. I

also had to finish my husband's third book because he became ill with lung cancer and so I had to finish his third book.

In 2009 I was appointed Commissioner to the Texas Holocaust and Genocide Commission whose function it is to educate teachers how to teach students about the Holocaust and genocides and take actions to prevent genocides from happening in the world. There are 15 commissioners. So I am one of the 15 commissioners. We have a survivor from Cambodia, a survivor from Rwanda, and another Holocaust survivor. I am considered a Holocaust survivor even though I was not in a German concentration camp but I fled because of German invasion with just my clothes on and basically lost my childhood... I had to spend time standing in lines for food rather than playing on the playground. These activities keep me very, very occupied.

I am also a member of several groups like the Faculty Wives and Women Faculty. I'm a member of the Retired Physicians Organization, even though I'm not a physician but my husband was, and I'm active also in my Synagogue. I'm not a very practicing religious person but I like the social interaction. So what else keeps me busy? My two daughters and a grandson who is doing computer security research in San Francisco. My older daughter lives in Houston. My younger daughter is an attorney; lives in Dallas and is married to another attorney. My older daughter is an artist so she has all kinds of artistic jobs. All of that keeps me busy pretty much. I like teaching the young people how important it is not to expect life to be without problems. There is no such thing as life without problems. One has to learn how to face the problem, how to cope with the problem, overcome the problem and just go on with your life and never lose hope and just keep going and have a goal in life and be willing to work hard. Nothing comes easy.

There is no such thing as a free breakfast. When I came to the United States the word that I hate most of all is “free”. You buy 2 jackets you get 1 free. You buy 10 tomatoes you get 1 free or whatever. Please! It instills in people the idea that they can get things for free. I don’t like it. Charge me less. Don’t give me anything for free just let me pay for whatever I get. I can’t stand this “free” business.

NG: Do you foresee yourself continuing this work with the Holocaust [Museum] and things of that nature?

AS: As long as I’m capable, like I said I just celebrated my 85th birthday. In fact, the Holocaust Museum Houston is giving a concert in my honor, my younger daughter and her husband kind of sponsored it so it’s going to be March 3rd. I give museum tours to students from middle schools, high schools, professional groups and other visitors. I serve on the museum board of trustees and on several committees. I think the museum is doing a great job in educating people that bigotry and discrimination can only lead to disasters like the Holocaust. And only learning to live with mutual respect and understanding can make this a better world! And that there is no free breakfast. You’ve got to have a goal. You’ve got to work hard for it and just focus on your future.

NG: Is there anything that I didn’t ask you that you wanted to talk about or anything that you wanted to mention?

AS: I think I talked much too much already don’t you think? I think we should have a cup of coffee!

NG: Okay well thank you very much.

End of interview