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## Interview with Ritsu Komaki

Ritsu Komaki MD, FACR, FASTRO

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**TEXAS MEDICAL CENTER**  
**WOMEN'S HISTORY PROJECT**

**Dr. Ritsu Komaki**

Interviewed by: Natalie Garza  
Date: December 10, 2013  
Transcribed by: Michelle Kokes  
Location: MD Anderson

NG: This is Natalie Garza it is Tuesday December 10, 2013 and I am interviewing Dr. Ritsu Komaki in her office at MD Anderson on Holcombe Boulevard. Can you begin by telling me your full name please?

RK: Ritsu (R-I-T-S-U) Komaki (K-O-M-A-K-I) and I'm professor of radiation oncologists at the UT MD Anderson Cancer Center, Houston.

NG: Where were you born?

RK: I was born in Amagasaki city in Japan near Osaka and then I moved to Hiroshima where I was raised.

NG: When is your birthday?

RK: My birthday is September 24, 1943.

NG: I read a couple articles about your experience and your family's experience with the atomic bomb that fell on Hiroshima? Can you tell me about that?

RK: Sure well my parents they came from Hiroshima. They were born and raised in Hiroshima but my father had a job in Osaka and our house was just outside of Osaka and that's what we call Amagasaki City and that's the place that I was born. But when the atomic bomb was dropped I was just about two years old and that's why I'm here. If my parents were in Hiroshima I'm sure they would be dead and I was never born but we were just lucky our house was not in Hiroshima. A lot of relatives were there in

Hiroshima and so you know like my father went to Hiroshima to look for family members the day after the atomic bomb and he was exposed to radiation. We called it black rain which contained very high dose of radiation and he was exposed to the total body radiation. A lot of family members of his died because of the atomic bomb but my grandmother on my mother's side... so my mother's mother was in the city but she lived in a big house and she was underneath the house but she was saved and she had every side effect of the total body radiation but she survived. Her hair fell off and she started to have all the bleeding and the GI toxicity. She was taken away immediately from the city and so she survived through this atomic bomb and she died of some Alzheimer's and also she had terrible osteoporosis when she died. She was like 72 years old when she died. She was just incredible survivor.

My grandmother, my mother's side she was a very strong woman. I have never seen such a big woman you know in my life in Japan. My grandfather, so my mother's father lost first wife due to tuberculosis within like 6 months after they got married so he wanted to get married to strongest woman in the world, that was my grandmother. And she was 6 feet tall and nobody wanted to get married with her because all the men that was about her shoulder height. So in Japan the men they never want to get married to very tall woman. So that was my grandmother and everybody kind of making joke, "You're grandmother was born in Russia or someplace. She look so different from other people." Because she was so tall around that time she was putting her hair up and wearing this we call it *geta* so with that she just looked so tall but that was my grandmother.

So when I was like 4 years old my parents they decided to go back to Hiroshima to support some of the survived family members like my mother's side her mother and also my mother's younger sister survived. So we decided to go back to Hiroshima and that's the place I was raised. I met Sadako when I was 9 years old at the same school, same age and we used to run kind of very competitively during this fall season. We have this athletic meeting and we had like 12 different classes on the same age, it's a big school. The elementary school we called Nobori-cho elementary school and she was very fast. We were competing but then she became very short winded and she was found to have leukemia and she was in the city when atomic bomb was dropped and her name Sadako, S-A-D-A-K-O (that's her first name) and her last name was S-A-S-A-K-I and their house was right at the edge of Hiroshima and her father was a barber and she was just born, she was maybe about one and a half or two years old [when the bomb dropped]. Then she was exposed very low dose of radiation. It was not right in the middle of the city so it was not epicenter. She did not have any burn or anything.

When she developed leukemia it was not regular childhood leukemia. The most common one was acute lymphocytic leukemia but she developed acute myelogenous leukemia that's related to like a radiation, total body radiation and she died within one year after her diagnosis. And we were so sad because she was so kind of high spirit and cheerful and she always cared for other people. When she died well you know during this taking treatment she was in the Red Cross Hospital and we visited her and we tried to make 1,000 origami cranes. In Japan if you could fold 1,000 origami birds you recover from illness and she really tried very hard to make 1,000 origami birds but she could not make it. She could not make 1,000. Every time she took medication which was wrapped

in square wax paper and after she took mostly like that was cyclophosphamide or prednisone it was wrapped with this square wax paper and she fold crane which is still kept in the atomic bomb museum. You can see it.

I visited many times so I saw and she was folding this origami crane so when she died we decided to do something for her and it was just not clear what we can do for her. But I was so touched about her death and I thought, “We should not forget what we had to go through.” Because I have seen so many children who lost their parents and they were orphaned. They did not have any houses or no parents and no siblings. I have seen so many people who faced this atomic bomb when I was a kid there and then you know I was very blessed just because I still had my parents and my sisters and brother. So not only her death but also I really wanted to make sure they do not forget this disaster dropping the atomic bomb how many people like 150,000 people died. Immediate death was like 75,000 and then another 75,000 people died within like 3 months and some of them after that because the people who are exposed to the atomic bomb the lower dose, especially those babies and the young people they developed leukemia several years or 10 years after and then of course some of the thyroid cancer, breast cancer, stomach cancer and later on they developed like multiple myeloma so it still keep going on and on the sequel of the exposure of this atomic bomb.

So Sadako registered to go to junior high school Nobori-cho Junior High School but she could not get there because she died. So when I became the President of the Junior High School myself and a couple of other people executive committee and Sadoko’s older brother he was already there, two years older than us. So himself and myself and a couple other people and also the classmates from the elementary school we

all got together to make some memorial statue for her. Within two years we collected the money by standing on the street and also we wrote a letter to all the deans of elementary school, junior high school and high school and we asked for donation to build the statue for her. This will be kind of a memorial statue for Sadako and also those kids who faced this atomic bomb. Also we made a documentary movie of Sadako and entitled “1,000 cranes” and that was displayed all over the movie theaters in Japan and then the money came and so within two years this kind of fund raising was accomplished so we built this statue for Sadako’s memory and it’s standing at the Peace Memorial park and that’s the statue.

NG: Okay.

RK: It’s about 10 feet tall and is Sadako standing on top of the kind of bomb shell and holding origami bird and this is to pray for the peace of the world and all the children who heard about Sadako’s story they fold origami birds and send from all over the world. You know from Houston and Los Angeles and you know Seattle and you know San Francisco, Boston it’s coming from all over the world and one string hold 1,000 origami cranes so it’s incredible numbers of the children they really kind of impressed by her story and praying not to repeat this mistake and peace in the world. You know when we are trying to build this statue we never thought about this will become such big symbol of the peace. But when I went back, actually my husband took this photo and this used to be outside so all the origami birds got so wet every three days we have rain so now it’s in the glass case.

It is the one thing we have done just to pray for the peace so this nuclear weapon and all the things which are still ongoing does not hurt all the children or the people who

are exposed to this radiation. They get the malignancy. Like one of my cousins also died of leukemia he was exposed to the radiation. But I really wanted to do something positive. When we face some death or some disaster... because my grandmother she was living in a huge big samurai house but she lost everything. She was very bitter about whole thing. At that time her husband, my grandfather was already dead due to asthma when atomic bomb was dropped but my mother's side is very kind of high class of the samurai family and they had a huge big house which was totally destroyed and around that time there was no paperwork left. My grandmother was just given very small house later on just outside of Hiroshima that's the place we moved in when I was 4 years old. And we did not have enough space or not much to eat but my parents said the only one thing we can give you is education.

I started to think about going to maybe medical school or to get some research of the leukemia. That's what I really wanted to do because I was very curious when I grew up because my grandmother who was in the city had total body radiation but never developed leukemia but Sadako had leukemia. Why the difference? The same human being... some people very susceptible to radiation and some people are not. I became very interested in radiation effect to the human being. So I entered medical school in Hiroshima because my parents really wanted me to stay home. I went to Hiroshima University and medical school.

During summertime I always volunteered to work at the Atomic Bomb Casualty Commission. This was the research institute originally supported by United States 100% to investigate the effect of the radiation to those people who were exposed to radiation like my father, my grandmother they were all under kind of research. They were

investigating what will happen to those people who were in that city the day when the atomic bomb was dropped and also immediately after somebody came in and the somebody who came in and lived there like my younger sister. She has been living like 60 years now. So they have been checking all those people who live in that town.

Originally we were told nobody can live in that city like 20 years but the most important thing in Japan is the land. We don't have enough space to live. In the middle of the mainland is the Alps and then we are surrounded by the ocean. So the place where we live is just a belt between mountain and ocean. So the land which we succeeded from grandparents or family belongings the land is the most precious thing for us. So immediately after the atomic bomb the people started to come back otherwise you don't get any place to live. Within 6 months people started to move back and then we claimed you know this is the place we used to live. So that's the way.

I decided to go into more leukemia specialist or maybe cancer specialist but always I was interested in this difference of the human beings. People were exposed to atomic bomb, they have different susceptibility depending on their age and maybe the distance from epicenter and so of course you know I was very curious since I was really born why people are so different. And then when I graduated from Hiroshima University and during this summer time I worked at the Atomic Bomb Casualty Commission and now they call that institution Radiation Effect Research Foundation (RERF). It became 50/50 support from U.S. and then from Japan they are supporting this RERF. It started about 20 years ago. The United States they said, "We cannot support this ABCC 100% so Japan should [provide] some of the financial support" because they have published so many human effect to radiation exposure and incredible publications. The National



Council of Radiation Protection at Washington D.C. they have very tight connection with this institution RERF now. I really started to go to that place to see what kind of effect that people had in chromosome abnormality and they were doing a lot of research.

Then after I graduated from medical school, medical students nationwide and also interns we closed university hospitals to request better medical system and also we wanted to get the payment for internship. We had to work free, no payment the one year after we graduated from medical school. But we decided to request some payment and also the medical system in Japan is not right and so we decided to walk out from University Hospitals which were about 47 university hospitals. We closed and we walked out. So I had to go someplace to get the post graduate education. So I worked at this RERF. They have some internship program so I worked there for one year and then the chairman of the radiology department there, Dr. Russell, Walter Russell he recommended me to come to United States to continue post graduate education. So that's the way I went to the medical college in Wisconsin. I started the internship and also I did the one year fellowship at the V.A. Hospital in Milwaukee to do a hematology oncology.

While I was rotating during the internship I became more interested in doing radiation oncology because some of the patients who received radiation treatment for cancer of the larynx you know they were cured. I thought, "Wow this radiation treatment as long as cancer is early stage and also it's really confined to certain area they can be cured." So I became more interested just because I was always curious about the radiation effect to the human beings. I decided to go to radiation oncology. I took my residency program for the radiation oncology at the Medical College of Wisconsin. I was there like four years and when I became a fellow after I finished my residency

program I came to MD Anderson. That was like 1980 and Dr. Fletcher who was chairman here, he was still alive at that time. I was very, very impressed about MD Anderson Cancer Center the way they treat all the cancer patients with a modified disciplinary approach you know surgeon and radiation oncologist and the medical oncologist they discuss openly what's the best for the patients. When I went back to Medical College Wisconsin I became Assistant Professor and I was there like 14 years and then I got married there and then went to Columbia University in New York and I was there 3 years. I came to MD Anderson 25 years ago and I have been here since.

But you know this Sadako who died she still lives in my spirit. I always think about her death and if there is anything we could have prevented. And you know every time I hear about this nuclear weapon some country's developing, I always feel like, "What will happen to those younger generation if they drop all this terrible nuclear weapon?" and that they really have to think about consequence. This atomic bomb which was dropped in Hiroshima, if I think about, "Why did they drop it in Hiroshima rather than a different city or something?" But right now, they have certain countries of nuclear power or nuclear weapon it's much more powerful and how many people will be killed? I don't think they have any idea but that's one thing.

Then when I was treating patient with radiation treatment, so many people asked me, "Why did you become radiation oncologist? You came from Hiroshima?" I told them you know the radiation if you use with direction we can cure cancer, but if you use wrong way you might kill some people. That's the same thing with drugs or chemotherapy if we overdose we might kill the patient but if we use the right amount and

the right disease we can cure some of the leukemia in some patients. I always had that kind of balance with everything we use, the balance is very, very important.

When we came here 25 years ago we started to talk about, my husband is also a radiation oncologist but the way we came he was like a vice president of patient care and physician in chief and he did administrative thing about five years. Then when he stepped down from that position we started to talk about the proton treatment. You know the proton treatment we can do really confined treatment like with children so it does not suppress their growth and it does not retard their mentality if they have a brain tumor because it's really targeted treatment and it does not damage surrounding normal tissue and I really, really wanted to get this proton treatment. It's very expensive to get the proton facility you know building itself and equipment and so at the beginning my husband he said, "No way." But then we started to think you know there might be good for young patients, pediatric patients and also some of the adults even like lung cancer which I do these days, the patients we treat the standard treatment is locally advanced non-small cell lung cancer or small cell lung cancer we have to use both chemotherapy and radiation therapy sometimes with surgery. Why we are not improving outcome? Because a lot of patients die due to toxicity and maybe by using proton treatment we can reduce that toxicity and that's the way we can improve the outcome so they don't need to carry oxygen because of this radiation pneumonitis and so we really started to think about this proton and then we had to look at all different equipment. We went to South Africa and Europe and Japan and finally we decided to get this proton facility and that proton center opened in 2006. Now we have a very large patient population treated here and our institution is one of the most prominent institutions to treat like lung cancer patients.

Other institutions they treat prostate cancer or maybe pediatrics which became a kind of standard proton treatment. So we are treating a lot of pediatric patients but lung cancer patients just because controlling tumor motion and doing adequate imaging it was not very easy at the beginning but now we have a very good tumor control. It doesn't move much and also when we plan we count the tumor motions so we don't miss it. We can do that very well... it seems very promising. And finally we opened through radiation oncology group nationwide, maybe it will be international protocol. We are going to do randomized study to find out this proton with chemotherapy versus x-ray treatment. We call it intensity moderated radiation treatment IMRT we are going to compare which will be better for the patient's survival. Right now in our institution in MGH we are doing randomized phase II trial that means we are just looking at the comparison of the toxicity in the lung by using proton and the chemotherapy or x-ray treatment. It's ongoing but we are almost finished with this trial. We are going to open nationwide randomized trial. Somehow my dream came true. You know for the children's sake and so they don't need to suffer from exposure to radiation. My curiosity about the people that have a little bit different susceptibility to radiation so I have learned a lot from my experience meeting Sadako and facing her death which told me a lot. So I would like to teach others.

NG: I mean I think it's really remarkable that such a young group of kids got a monument together and working on a documentary and all those things.

RK: Yeah because I think around that time everybody was trying to survive from the damage from second world war. So they didn't nobody had enough food, nobody had enough place to live in Hiroshima it was totally burned. So they were living in shack and

I still remember when I was going to school there were tiny shacks along the river and because my grandmother's house was suburb because nobody really had the houses in the middle of the city at that time. They were still building. But when we decided to do something for Sadako's memory people were so touched and they donated money and it was just amazing within two years we collected money. And to build the statue because they all the adults they really felt, "Oh look at those children they would like to do something so we should help them." So yeah I think just started initiated by children, yeah that went through so quickly.

NG: Right. I want to go back and ask about a few different things that you talked about.

RK: Sure.

NG: What did your parents do you said your dad worked in Osaka what did he... what was his work?

RK: He was a banker. My father he was among seven children. He was the youngest among 7 and his father owned *sake* brewery just outside, well this was still in Hiroshima. But the Hiroshima has enough inner sea and there were many tiny islands and that's the place we called it Minoshima. He was born and raised in this small island but when he was 10 years old his father died and his oldest brothers succeeded this *sake* brewery. This is September. You know in Japan we always get typhoon around September or October sometimes just tsunami comes but so the *sake* barrel in ship sunk that whole thing sunk so maybe around that time they did not have any insurance so his family went bankrupt. They lost everything. My father had to live with his oldest brother and he went to his school from his house but he delivered the *sake*. They had the small liquor store and he

had to deliver. That was his kind of moonlighting and that's the way he could live in this house.

He decided to go to college at the university but he did not have money so he had to go to... well he got a scholarship and he went to Hiroshima University. That means he had to serve after he graduated from Hiroshima University, and his major was education. So after he finished four years university in Hiroshima he had to teach at the small villages and those are very isolated tiny villages he taught. He saved the money and he went to Kyoto University which is one of the most prestigious universities and he majored in economy.

At that time when he graduated from Kyoto University he got married with my mother by arrangement. We call it *omiai* but in Japan many years there was cascade, like royal family is the top and the next one is samurai family and the next one is farmers and the next one is merchant. So my father's family was of the class of merchant and my mother's side that was samurai family so 200 years ago they never married with different class. I still remember my mother always said, "If we were like 100 years ago we would never marry and his your father's family is way down the class is much inferior compared to my family." My mother always said that.

But my father was very industrial and so he was working at the big company in Osaka kind of conglomerate that's what they call and then so that's like there were several those big companies like Mitsubishi and Hanshin that means Osaka and Kobe this big company owned all the transportation and that's the place he was working. Then I was born so when I was 4 years old my father decided to go back to Hiroshima so he decided to work in a bank so he was a banker for many years when I grew up but in Japan

there is strict rule. Once you become banker you never have a kind of long tight connection with those guests or the clients. So my father became like a chief of this small kind of satellite of Hiroshima banks. So he had to go to different cities and I missed my father so much when I grew up. So even though we were living in Hiroshima he had to go all different places and he had to work 6 days per week and I never saw him but he was a banker so many years and he came home 2 a.m. in the morning because after 6:00 he always entertained those customers at the bar and that's the way you know he gets customers and loan the money and so on.

It was very difficult time because I never saw my father other than maybe Sunday but like he was almost stranger to me and basically every day I was raised by my mother. She was very, very strong person such a high pride and my mother just well my parents basically they loved us and I was very lucky just because my parents supported me all the time. My father I think always wanted me to become like a doctor because he could not go to medical school because he did not have any support. His almost twin brother, a year ahead his brother became a physician because he was adopted by a doctor's family and he became a physician. My father he always envied him and he wanted one of the children to be a physician I guess. But we had the one brother he was the oldest among four but he became ill and he died, he was very young. Maybe he was 40 he died of hepatitis and so I was right in the middle. I have one older sister who became a veterinarian and my younger sister is a pharmacist and I'm a physician.

I think my mother really influenced the girls the way we were told my mother said when she was 7 years old she read everything because my grandfather, my mother's father was a secretary of the Lord, the Hiroshima prefecture. So he had so many books in

his library and my mother read all of it when she was like 7 years old and she memorized all the history of the European the royal family and the history of this dynasty of China. She memorized whole thing. Then second war came and then she thought about if my father couldn't come back, if he died from the war (he had to go to the war) what could she do with four kids? She was just scared to death. So she told us, "You never know." All the knowledge you have but you know writing, I always loved to read and she said, "I read everything."

She was crazy about history and when my father died (bladder cancer) when he was like 70 years old, after that my husband and myself we always took my mother to Europe and different places. So she told us all the history of royal family of Europe and she memorized so well and I couldn't believe she memorized all the family trees who got married with whom. But she said, "It is very difficult to get job just by the knowledge that she had." So she really wanted us (the girls) to have more technical skills. So that's why all of us girls became like a physician or veterinarian and so on but I still regret. I wanted to read so many books but every time I try to read all those non- science books, the fiction, my mother always said, "No you have to read more science or mathematics or something." Because she was so weak about the science so she always pushed us to do more science rather than kind of history. That was my mother. But yeah my parents were so different.

NG: Can you talk to me a little bit about what attitudes towards women were like in Japan? For example, did your mom have a job outside of the home?

RK: No.

NG: And was that normal? Most women...



RK: Yes. Basically the women in Japan are treated totally wrong way. You cannot [have a] voice. You cannot say it because if you start to say, "This is not the way women should be treated." You are kind of an outsider. You know if I go back to Japan my brother in law, especially my younger sister's husband who was the professor at the Hiroshima University Dental School he does not like my attitude because I am so Americanized and he doesn't want me to influence my younger sister. Japanese women they are supposed to raise the kids and just obey whatever husband says and you should not be prominent in the outside in society, in public. That's the way the Japanese society forces women to be kind of just follow your husband. Obey your husband and raise good children. That's the most important thing.

NG: Does your other sister live in Japan?

RK: Yes.

NG: Okay. So what was it like I mean for three girls to be educated? Was that abnormal or was it at a time when more girls were being educated.

RK: It was abnormal. Because my older sister who was well educated and she went to very good University to become veterinarian when she graduated she could not get any job because around that time no women could work at the zoo. So she couldn't get any job. She had to go to much bigger city where she met her husband and she has been living in Nagoya. She used to work at the zoo. She already retired. But around that time she could not get any job so she had to go to much bigger city. And women you know... she struggled. Once she got married and this is very strange thing. I was still a medical student. So she told us, she told us she's going to get married because she fell in love with her husband now. So my father said, "No." Because my older sister's husband has

not had higher education than her. He had some MBA and that was like a he had an education through correspondence and he had MBA but not really high education like going to well-known university like my older sister went.

I had to go with my mother to talk to him to give up this marriage because my father had a very high expectation of his children. The girls were supposed to get married with very highly educated men. So my father said, "No." My older sister should not get married with this guy and he was such a wonderful person he has master of the tea ceremony and the master of the flower arrangement and you know all of this but it's not typical. You know like a... we call it the business man in Japan. So my mother and myself we went to talk to him just to give up this marriage but they didn't. And they got married without us. Once they had the baby that was all over. So my father you know kind of forgive them and he became very happy once he saw this grandkids. But it was always kind of the women should be less respected and also it's very difficult to get a high position. Any place. If you have same education there will be less salary. When you get married we are not supposed to marry with kind of different level.

Always men should be... women actually really, really well educated. For example like when I got married here my husband is American and my father never talked to me like two years he was so upset. Because coming from Hiroshima and the people who dropped the atomic bomb and why are you getting married with American? But when he met with my husband everything went fine. But in Japan they always feel like women supposed to be at home and they should not open their mouths in public. It's still the truth but before they get married women they have all the education, very, very well educated in English, French, Italian, they are fluent. What do they do? They

prepare to become good wife. And they go cooking class and music and this and that. That's what I wanted to tell you.

We were on the way to go to Japan. This many, many years ago. This must be like 30 years ago. We have been married like 36 years now. So on the way to go to Japan I had a woman sitting next to me from Los Angeles to go to Japan, Narita, and I asked her, "What do you do?" She said, "Well I graduated from college but I'm preparing to do all the cooking and you know to get married through the arrangement." She just went to Los Angeles for her sister's wedding preparation so they did all the shopping in L.A. and were going back to Tokyo. She invited us to have some dinner and she showed up in this incredible Datsun that's a sports car and in the back of the sports car she had this golf kit. So my husband he said, "I cannot understand those Japanese women. They go to college and they don't use that professionally. Why do they do that? What a waste!" I said, "No I don't think that's really waste." Around that time I said when 50% of the marriage is arranged so if they match with the right person they will be very happy. So that was like my younger sister. She went through like 27 arrangement and finally she said yes and so she is very happy. So I said I don't understand that kind of marriage but she is very happy.

NG: What about your decision to come to the United States was that a family decision or were you left independent to make your own?

RK: I decided to come here because as I said there was strike went on so we could not go back to the university hospital. If you go back to the university hospital for the post graduate education that's breaking strike. So I had to go somewhere and so with the recommendation of that chairman of the radiology I came to United States so after I

finish my residency program I was supposed to go back to Japan but I got married so I stayed in the United States. But I still miss Japan a lot because I'm the only one other than my husband and kids. But you know I still have a lot of friends and my sisters. Japan is such a beautiful place, but such a bureaucracy I can't stand that. If I lived there, there is no way I can be so outspoken person. I cannot do it. When I go back I try to be very polite. Well I am basically polite person but when I got to all those meetings in Japan they always say I'm so Americanized. Yeah I speak too much. I said, "Okay. Well that's the way we have to live. In the United States there are so many mixed people so we have to speak out otherwise nobody can read their minds."

NG: In thinking about that how do you feel? When you look at a lot of people who come to the U.S. and go back home they get that attitude that they are so Americanized. But then being in the United States sometimes you get the attitude, the opposite attitude that you are not American enough.

RK: Right that's true. I'm so quiet and I don't speak up and I don't demand so I am not treated like a real American. It is. It is really true. I understand those people coming here as a fellow or post doc from Japan I feel so sorry for them and I encourage them to speak up otherwise nobody can read your mind. But they are just so quiet, so polite. Some post doc who has been working with us like 5 years he went back home because he just felt that he was not treated right. I said, "If you don't speak up nobody knows what you are thinking." He worked so hard but he had to go back. He wanted to go back I guess.

NG: How did your family feel about you coming to the United States?

RK: Well my mother she felt, "Well as long as you are happy that's okay." But you know basically my parents they missed me to be with them all the time. So when my parents passed away both of them when they became ill my mother had cancer of the stomach and she died about 10 years ago. My father developed bladder cancer and died almost 20 years ago. I went back but they always said, "I wish you could live a bit closer." Basically they said as long as you are happy we are okay. They worried if anything happen you still have sisters and so you can come home, but they had kind of mixed, mixed feeling. When they visited us they were very happy to see the way I have been working and whole family here. So I think basically they are happy what I have succeeded and I kind of accomplished my dream. So yeah...

NG: Now what about you know culturally in the United States how did you feel you were accepted being a woman in this field? Did you have other colleges that were women? Did you feel that you were treated differently being a woman?

RK: Yeah we have been treated differently and I'm sure women are treated differently and also some of the races you know being oriental they have been treated differently. Their expectation is because I don't look like American football guys so they feel like I am not strong enough. We have some prejudice I feel, and not treated fairly. Maybe you know I should demand. Some of the women they demand a lot, and that's not my nature. I think the Japanese women, younger generation they are getting more Americanized and they demand more and they decided not to get married because they are not treated fairly, equally. I think I still have kind of an old fashioned Japanese woman's background. I cannot erase. I do feel once when I started to ask, "I would like to be some society's president." They said, "You are woman and you were born in Japan and how can you do

that?” Maybe I should have insisted. But you know I always think, “Okay that’s the case maybe I go around a little bit easier way and not really face to face and I avoid any conflict or any big fight.”

NG: When I spoke with Dr. Kripke she was telling me about the Women Faculty Organization. Did you ever become a part of that?

RK: Yeah I am.

NG: Can you tell me about that experience or how it has been helpful?

RK: Yeah it has been very helpful and you know those are women who have accomplished a lot, Ph.D. Margaret Kripke she is Ph.D. and you know they really supported me kind of you have to speak up. Also you have to kind of be a leader so you are not the only one. You have to look after other junior women to become very goal oriented and establish your own area and then help others. I think I was encouraged to get some of the women faculty’s advice. I received this Texas Business Women award or something. They always encouraged me you know. Coming from Japan but I have established my professorship and as an educator and so they really gave encouragement and I’m not the only one who is struggling to keep my position and also to be a leader. It’s a kind of group of people who are really committed to their work but also they do have some kind of support you know. Kind of exchanging their experience and yeah that helped.

NG: How many kids do you have?

RK: Two.

NG: Boys or girls?

RK: One girl, younger one and one boy.

NG: How do you manage balancing that, your family life and all of the work that you do?

RK: You know actually those two kids they were from my husband's ex marriage. So when we got married they were like 9 years old, younger one and older one was 11. So I had to struggle through their ups and downs. You know the worst time when they were like teenagers. It was not easy. We had to spend the time... we never went out. We tried to always make the dinner or something at home and I had a tendency to tell them what they should do looking at the future. "You should be a lawyer or a physician or something." But they had their own way to do things and so my husband just always kind of let them do whatever they want to do. We had sometime very difficult times when they grew up. But to balance my husband helped me a lot. You know he took care of the kids to go to the museum and here and there while I'm writing something and I had enough time to go to different meetings. So he helped me a lot. I had to be very patient when they were in bad mood and so on. My husband really great help to distribute them here and there and all the piano lessons and this and that. He did all the hard work seriously.

NG: Now you have a M.D.?

RK: Yes.

NG: Do you have patients like a set of patients that you see?

RK: Yeah.

NG: Can you explain to me how that works along with your research?

RK: You know I have American Board of Radiology and so I'm a radiation oncologist. So I see a lot of patients. Mainly those are patients I see like lung cancer patients, cancer

of the esophagus some are thymoma or thymic carcinoma, the thoracic area. So I see the patient with thoracic surgeon and the medical oncologist together like on Monday afternoon and then I do a planning for the radiation treatment and then I have to treat those patients and I have to see patients once a week during this treatment and more and more we started to see tiny stage 1 lung cancer patients which we can do more targeted treatment. In that case I have to be there like every day four days that's why I was a little bit late to come up here.

So Monday through Thursday I have to treat those patients. We look at CT scan in exact spot we are giving very high dose of radiation. That's where I have to do it. Then some of the patients we are treating at the proton center and I have to see them once a week. The patients under treatment I see them on Thursday morning and then those patients who finished treatment I follow them. The first follow up is like one month after they completed treatment. They come back and I have to make sure they are not developing any side effect and then if everything's okay we start to see them like every three months for a couple of years, and then every six months for two more years, and then once a year. So those are follow ups I have to see on Wednesday. The other days I teach. We have like 25 residents. So the radiation oncologist the only one department that has the residency program. So we have to teach them. You know when we see the patients we see them together and how to plan and all those things. We teach and also I'm a medical director of the Dosimetry School. I have responsibility to educate those Dosimetry students, those are people who plan radiation treatment. I give a lot of lectures nationally and internationally. Half of my time is patient care and the other half



more education and research. Over the weekend I write. Nobody bothers me so I can write.

NG: Do you enjoy teaching?

RK: Yeah I love teaching. Yeah I love to teach especially kids these days.

NG: Why did you come from Columbia over here? Why did you decide not to stay there?

RK: Okay three and a half years there it was very difficult between 1985 and 1988 we were there and my husband was chairman there and I was associate professor and the clinical chief. But they were not really organized very well. They promised us to get the high energy equipment of the radiation treatment that was never done because they were losing money like \$2 million dollars every month. They said, "We cannot afford to buy new equipment." So our kind of original request was never done. Around that time there was no computerized system and there were like 5 residents they had to work like slaves. They had to get the pathology from the department of pathology and getting films from diagnostic radiology. I thought this is not the teaching hospital we are not really teaching them they are used as slaves you know just do daily work and that's not the way we should teach them. This is not the place.

The main thing I really wanted to do a lot of research and there was no established tumor registry and I could not get all the database. I said, "Why don't you have any tumor registry?" Because each attending of the medical oncologists they have their information in their office. So they don't disclose all the information in the hospital chart. I said, "This is not the place I can do the study, I can do research." And my husband was given the job here as a physician chief and vice president of patient care so that's why he

came here and I was recruited to be a section chief of the thoracic radiation oncology because my predecessor the guy who was section chief he died. He died of it was an ophillic granuloma of the lungs and he was waiting for the lung transplant but he died so they really needed somebody who can do lung cancer and that's why I was appointed to be a section chief.

NG: I want to ask quickly about the proton therapy. Do other hospitals do that or no?

RK: Not so many.

NG: Okay.

RK: In Texas this is the only one place. Nationwide, Loma Linda had proton therapy very long time, maybe about 20, 25 years. Then MGH, Massachusetts General Hospital they have their own proton facility. They have had about 20 years and so our proton center was like 4<sup>th</sup> in the United States and then now just because we started to treat lung cancer and we expanded all different area now it's like 20 small proton centers open. Some of them coming up like Mayo Clinic they bought this same proton from Hitachi Company. So Arizona, Mayo Clinic and Rochester, Minnesota Mayo Clinic they are going to have proton.

NG: So you're research lead you to these ideas about focusing the radiation?

RK: Right to the tumor and then not expose the normal tissue surrounding normal tissue to radiation. That's the most important thing because if we are exposing the tumor and the normal tissue surrounding, the lower dose of radiation might cause the toxicity like pneumonitis and also for young people it might cause second malignancy. You know like somebody who is treated for breast cancer many years ago and because of some scattering radiation to the lung they might develop lung cancer later on. So we are

trying to reduce the lower dose area by using proton. This is so important for the kids. They are going to live many years. Those children's tumors. Some of them they will live 20 years 30 years and they will develop cancer, second malignancy which we have seen that because we had the cobalt or some of the lower energy equipment. So some of those children who are treated like Hodgkin's disease or some pediatric malignancy. Then later on they develop cancer of the esophagus lung, breast cancer from the low dose of radiation scattered to the breast from Hodgkin's disease, radiation treatment to the mediastinum. So we have witnessed this low dose of radiation will cause cancer and the best example are those survivors from Hiroshima they developed cancer. They never really smoked or they didn't do anything wrong but the incidents of cancer of Hiroshima is way up high so that means low dose of radiation they received when they were young is the cause of cancer. The proton treatment that will reduce the chance of the malignancy and also give very high dose of radiation to the tumor itself. That should be win/win situation. The cancer cells will be killed with high dose but not damaging surrounding normal cells.

NG: You have different awards and lots of committees that you participated in and memberships and like you said given a lot of lectures and a lot of that. Is there anything in all of that that really stands out to you that you are particularly proud of?

RK: Oh yeah okay. I am so proud to receive Marie Curie award you know this was at Warsaw they gave me the Marie Curie award. So this was one of the awards I have received. This one from AAW, American Association of Women Radiology. I received highest honor of the Marie Curie award from my work and also the teaching and then I received this at the same time when my husband took this picture. This is from Poland in

Warsaw. This is Marie Sklodowska-Curie Foundation they gave me this gold medal to me. Those two things I am so proud of what I came from and my journey and that I was recognized by this you know... I think life is all balance.

I recognize everything we do we always have to think the radiation if we use right way we can cure the cancer. But if you use wrong way you know that will damage the normal tissue. We really have to use wisely to protect normal cells and then kill bad cells. This thing is very important for human beings and especially for children. They are growing up and their susceptibility to radiation they have to recognize and I was awarded for my research and also the curiosity. And to teach the patients and our trainees how to use it and the application of the radiation and how to do it depending on age and what type of tumor and somehow you know I have accomplished my curiosity and kind of research and they awarded this Marie Curie award and I was so blessed by receiving this. You know Marie Curie she's always my role model while I was growing up. I read her stories so many times and you know coming from Poland and you know becoming a kind of incredible recognized professor in France, in Paris it was not easy but she was so persistent. I really truly believe you have to focus the people's idea but not based on their races or anything else. She said the right thing and persistence is very, very important.

NG: What advice would you give to women now coming into medicine?

RK: I think that women...it's not easy just because if they will like to have family and how they can balance your professional life and you know you face to the deadline and you know the kids were screaming and yelling and we cannot drop this family things and just finish some grant or something. So but as long as they set up the goal, you know the women they really have to set the goal way ahead and some of those teenage kids they

are totally confused and that part I did not have. When Sadako died I wanted to be a researcher or a physician or something I already set up some goal whatever I'm going to do. So there will be some winding roads and you get married and have kids and this and that but once you set up the goal I think they can achieve as long as you really try to get there. Sometimes it's tough. Sometimes you have to wait but you always believe you can get there. But you really need some support you know from your family or friends or somebody. You always have to believe you can do it with some help so believe and you know they really have to trust somebody (not everybody) but they cannot say, "Just because I'm women they don't give me any job. They don't treat me right." They cannot say that.

There are different ways to approach. I always had to go around and you know but you get there maybe not 100% of what you wanted but as long as you set up the goal and you have to kind of become more persistent and you know one day you maybe you have to do some family things but you know next day you can catch up. I really encourage those women that would like to be a professional or physicians. My philosophy was always that I would like to something for my patients or sick people. Then I can stand up. I was beaten up so badly at the meeting. Some of the men, "Oh you cannot do that. Radiation treatment doesn't do any good." Then I always think about my patients to protect. You don't want to kill a patient who's 80 years old by doing surgery. So if they think they can do something for patients they can stand up and they can achieve their goal.

NG: Just one last thing. Is there anything else that you wanted to add or that you thought we would talk about that we didn't talk about? Anything like that?

RK: You know I think some not only women but men they start to kind of scream and yell and, “I should be this” and these days women they have been treated much better than men. When I decided to be a kind of expert of this radiation treatment I worked so hard. One thing if somebody who would like to be a goal oriented person you really have to work. I worked twice as hard at least. Like when my husband was chairman I decided to work 10 times harder not to be favorite of my husband. I don’t want to be accused just because your husband is chairman now you are professor or something. So I just decided to work harder than anybody else.

Also to become professor of radiation oncology I decided to become really expert of surgery and the medical oncology. I had to know all their approach so I can discuss with those people. So they have to get the basis right, their root very deep right. Their root very deep so you are not just focusing one area you have to know all different side so you can discuss the subject or any case together. Some people they are missing that. When a surgeon blames radiation side effect. I said, “Maybe surgery itself, does it cause some side effect as well?” That’s the way I learned when I was a resident. I decided to learn all the side effect of surgery, chemotherapy as well as radiation so we can discuss evenly, fairly. The reason why I had to do that I had an incredibly strong surgeon beat me and I was so junior and how I can deal with this surgeon? I had to know all the side effect of the surgery as well as radiation and chemotherapy so I could argue with him. But I learned some lessons. I put his name on for some paper and he mellowed out. So he never gave me a hard time after that. So there is a way to do it but I learned a little bit hard way.

NG: Okay thank you.

RK: You're welcome.