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Lorenzo Cohen, PhD

Interview Session One: May 4, 2016

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Chapter 00A
Interview Identifier

T. A. Rosolowski, PhD
0:00:00.0
All right, so the counter is moving, we are now recording. And I'll just put an identifier on for the archive and then we'll be ready to roll. So it is 18 minutes after 1:00 on May 4th, 2016. And I'm Tacey Ann Rosolowski. And today I am in the offices of the Integrative Medicine Program in Pickens Tower on the Main Campus of MD Anderson and I'm interviewing Dr. Lorenzo Cohen for the Making Cancer History Voices Oral History Project run by the MD Anderson Cancer Center in Houston, Texas. Now you'll correct me if I've got any of these little details wrong. Dr. Cohen came to MD Anderson in 1997, right? As an assistant professor in the Department of Behavioral Science in the Division of Cancer Prevention and Population Sciences. Since 2002 he has served as director of the Integrative Medicine Program. And what division is that housed within?

Lorenzo Cohen, PhD
0:00:59.9
Cancer Medicine.

T. A. Rosolowski, PhD
0:01:00.4
Cancer Medicine. OK. He has a primary appointment as professor in the Department of General Oncology and the Department of Palliative, Rehabilitation, and Integrative Medicine, both in the Division of Cancer Medicine. Is that correct?

Lorenzo Cohen, PhD
0:01:19.1
Kind of. So I went from the Department of Behavioral Science, and I can't remember the exact date, but we can get it if it's necessary, to the Department of Palliative Care and Rehabilitation Medicine in, I don't know, let's say 2005. And then in 2008 went to the Department of General Oncology. And then in 2014 went to the Department of Palliative, Rehabilitation, and Integrative Medicine.

T. A. Rosolowski, PhD
0:01:59.4
Well, I have a feeling we're going to follow that story in a little more detail. Because I bet there's an interesting backstory to that.

Lorenzo Cohen, PhD
0:02:07.9
Unfortunately, yes. So we're now currently a Section of Integrative Medicine in the Department of Palliative, Rehabilitation, and Integrative Medicine. And there's three sections in this department, which are properly Palliative, Rehabilitation, and Integrative Medicine.

T. A. Rosolowski, PhD
0:02:27.7
Well, it's interesting. Because as people start talking about this peripatetic movement between sections and the renaming, it actually all has to do with how disciplines are formed and weird processes within the institution. So these things sometimes cover up an interesting history. OK, well, we will I'm sure trace that. So I wanted to say thank you again for making the time for doing this. Appreciate it very much.

Lorenzo Cohen, PhD
0:02:54.7
Happy to.

Interview Session: 01
Interview Date: May 4, 2016

Chapter 01
A Family Experience Rich in Influences
A: Personal Background;

Codes
A: Character, Values, Beliefs, Talents;
A: Personal Background;
A: Professional Path;
A: Influences from People and Life Experiences;
A: Experiences Related to Gender, Race, Ethnicity;
C: Formative Experiences;

T. A. Rosolowski, PhD
0:02:58.3
Well, let me just start with a traditional place. Where were you born? When? Tell me a little bit about your family.

Lorenzo Cohen, PhD
0:03:06.0
Sure. So born November 14th, 1964 in Rome, Italy. Was there for a year and then we moved to New Haven, Connecticut, where my father was a brand-new assistant professor at Yale. He's an economic historian and focused his research early on in the Italian banking system, and so was first year of my life in Italy doing research. But my mother is Italian. She's Florentine. And she spent her life between Rome and Florence but her early years in Florence, but moved to the US to finish high school when she was 16 and then met my father when she was 17. They got married at 20 and 22. So kids came nine months later. So I have a brother who's just a year and a bit older than me.

T. A. Rosolowski, PhD
0:04:20.3
What are your parents' names?

Lorenzo Cohen, PhD
0:04:23.0
Paola, P-A-O-L-A, and then Jon, J-O-N.

T. A. Rosolowski, PhD
0:04:27.9
And your brother's name?

Lorenzo Cohen, PhD
0:04:27.9
Just J-O-N.

T. A. Rosolowski, PhD
0:04:32.8
Oh, I'm sorry.

Lorenzo Cohen, PhD
0:04:33.1
And David is my brother's name. So spent from I guess '65 until -- it'd be '73 in New Haven, Connecticut. Don't have a lot of memories of that. And then moved to Toronto, Canada when I was in third grade and was in Toronto through thirteenth grade. We had then in the province of Ontario grade 13, so there was five years of high school.

T. A. Rosolowski, PhD
0:05:22.6
But your dad is an American citizen?

Lorenzo Cohen, PhD
0:05:24.8
Dad is an American citizen. I was nationalized American. Mother is an Italian citizen. I think she holds dual now. My father holds dual with Canada. My father is dual Canadian/American. And he's been in Toronto since 1973.

T. A. Rosolowski, PhD
0:05:47.3
Well, I'm just interested, because of course as an adult you work across cultural and national boundaries. And you had that in the beginning in your family situation, which is cool.

Lorenzo Cohen, PhD
0:05:56.0
I don't know if you were to add it up. But except for -- from birth until graduating college actually -- probably not quite. From birth to graduating high school spent three months every summer in Italy or the surrounding neighborhood except for two. So I'm fluent in Italian, it feels like home, essentially I was spending a quarter of the year in Italy every summer. We would get on the plane as soon as school got out and we would come back on Sunday and go to school on Monday.

T. A. Rosolowski, PhD
0:06:48.4
Tell me about your educational experiences amid all that. How was this multinational experience feeding your interests?

Lorenzo Cohen, PhD
0:06:58.0
Well, I've only known multicultural and certainly Italy. But in the summers we'd go to Greece, we'd go to Turkey, we'd go to France, Switzerland, those were our stomping ground. And lived in England for a year during one of my dad's sabbaticals, for eighth grade, so was there for the whole year for eighth grade. And I was in Toronto for 9, 10, 11, 12, 13.

T. A. Rosolowski, PhD
0:07:31.4
And I'm gathering that you enjoyed these experiences.

Lorenzo Cohen, PhD
0:07:32.1
Oh, yeah, love traveling.

T. A. Rosolowski, PhD
0:07:35.6
There's some people who talk about living overseas as a kid experiences and they say, "Oh my God, it was the worst thing in the world."

Lorenzo Cohen, PhD
0:07:39.8
No, but you see, I was born overseas, and my first year of life was in Italy. And then came to New Haven for nine months, and then I was back in Italy, and then went back to New Haven for nine months, and then we were back in Italy.

T. A. Rosolowski, PhD
0:07:55.8
What did you enjoy about it? What fed you?

Lorenzo Cohen, PhD
0:08:01.6
I never thought about that. I love traveling and being in different cultures and movement that it represents. Of course when you're on vacation things are festive. But it was always this different environment. I have a very unique grandmother, who we'll of course talk about, in the picture there. And she's my Italian grandmother, so my mother's mother. And her husband

committed suicide when my mother was -- I think she was 16. So I of course never met him. My grandmother at that point, I think she was in her early fifties. And that's when she picked up yoga, was very close with Krishnamurti and then Iyengar. And these luminaries of the yoga world were part of her life before that, but then really became part of her life.
0:09:15.1
So as a young kid hanging out with her and being in this environment as a preadolescent I didn't know of course how unique this is. But it became clear as I got a little bit older and entering high school.

T. A. Rosolowski, PhD
0:09:52.3
So you got to meet these folks via your grandmother?

Lorenzo Cohen, PhD
0:09:52.2
Correct. And her father was a really fascinating man. Alberto Passigli. He and his compatriots at the time were really -- they represented for Florence for the music world what the Medici represented for the art world. That may be overstating it a little bit but there was not a lot of music in Florence before Alberto Passigli got his hands on things. So they founded a music society, they built the primary music theater. Today there still remains a music festival called Maggio Musicale, the main music festival, that is going on now. That was an offshoot of Amici della Musica, the friends of music. And so all these phenomenal artists were around all the time from Toscanini to Pablo Casals to Rudolf Serkin, Bernard Berenson the art historian, Aldous Huxley. These people were guests at the farm outside of Florence. Federico Fellini. These were her friends and colleagues.

T. A. Rosolowski, PhD
0:11:27.2
What was your grandmother's first name?

Lorenzo Cohen, PhD
0:11:26.3
Vanda, V-A-N-D-A. And her maiden name is of course Passigli, P-A-S-S-I-G-L-I. And her married name is Scaravelli, S-C-A-R-A-V-E-L-L-I. Actually she married a really interesting guy. Of course she would marry an interesting guy, although I never pictured her as a married person, because I never saw her in that light, who was trained in World War II to become a physician. And he essentially had his whole degree essentially done except for the final exams. And then World War I broke out. And so he was shipped off. He was the closest thing that they could have at that point to have a doctor. And so he was sent to do doctoring during that horrible war.
0:12:38.8

And he during his spare time read philosophy to try to deal with the traumas that he was seeing and what he had to do in the conditions. And then when he got back after the war he had friends who were actually reading these things for their PhD and careers. And he thought that sounds much more interesting. And so he had read so much philosophy and was such a brilliant man, this is how the story goes, that he just wrote all the exams. In Italy I think even to this day to get your degree you just have to pass the exams. And so he wrote all the exams and he passed all of them, got his PhD in philosophy, and then became a world-renowned Kantian philosopher in particular, and was University of Pisa and Rome and obviously he had some mental health issues, and depression is what was -- and I always joke, "If you spend your life reading Kantian philosophy, if you don't have some good coping skills, yes, you're going to be depressed." But of course I don't know the full story.

T. A. Rosolowski, PhD
0:13:51.5
Sure, that's the way family stories are.

Lorenzo Cohen, PhD
0:13:54.1
So anyway Vanda obviously was a huge influence in my life. And of course my parents, they wrote -- I graduated high school in '87, so I think it was in '82, '83, they started doing research for their first cookbook, which was called *Cooking from an Italian Garden*. So Vanda, being a yogi, was a vegetarian. Her son, who was a huge influence in my life, my mother's brother, was also a vegetarian and a gentleman farmer. He was a stay-at-home dad. His wife was an executive in the Bank of Italy and high up, so he was really into macrobiotic gardening, and he oversaw the farm, but super creative, and always pushing the farmers to do things that were different, farming in a different way. He was vegetarian as well.
0:15:04.5
And so Vanda had at that time working for her -- early on of course in Italy there was sharecropping. So the farmer who was sharecropping, his wife is just this incredible cook. And of course she's a traditional Italian, so they know how to cook vegetarian food well, but they tend to not of course just cook vegetarian food in the standard Mediterranean diet. So when we were there in the '70s and early '80s she's just putting on incredible meals. And Vanda at the last minute would say to her Sunday morning, "There's 22 people coming today." And she's like, "A little notice would have been nice." And there was always these fascinating people coming. And then she'd start rolling out the dough for the lasagna. And just eating these multicourse phenomenal banquet style meals, 100% vegetarian.
0:16:13.5
And then in Toronto in the early '80s this big movement of vegetarianism and the health food stores were starting to open up and beans and rice and very bland and boring. And they thought what we eat every summer is pure vegetarian and it is ultra-gourmet. So this was of course super early on. This is the early '80s when cookbooks were not -- there was of course no Cooking

Channel, there was no cable. These were the early days. So they were like the first on the block of a pure vegetarian cookbook that could be gourmet.

T. A. Rosolowski, PhD
0:17:09.0
Now let me be clear. It was your parents who did the research for this book?

Lorenzo Cohen, PhD
0:17:15.1
Yeah, my parents were the authors of the cookbook. So I was in eleventh grade or twelfth grade when they were researching the book. So I was in some sense part of that process. It was their book.

T. A. Rosolowski, PhD
0:17:25.9
What do you remember about that?

Lorenzo Cohen, PhD
0:17:29.9
Oh, eating five soups for dinner because they had to test five soups. Where's our main course? It's like not tonight. We're sitting there at dinner. My brother had already left for college. And tasting a soup. And my dad says to my mom, "This is a real keeper, this is really good, how much nutmeg did you put in?" And she goes, "Oh, I don't know, just a little bit." And he's like, "You do know that we have to be precise in a recipe. You can't just say a pinch. You have to say a quarter or a half or an eighth of something."
0:18:12.3
So then we cook the recipe again. So I was certainly their number one taster because I was in the house. But obviously that had some impact on me of what I'm doing today. Even though at the time it wasn't part of my consciousness. My grandmother being a yogi, obviously I didn't know what was going on inside my development at the time, but it's obviously something that -- as you'll hear but I know you know -- I do yoga research. So that's always been knowing yoga, knowing vegetarianism, healthy lifestyle, this larger Eastern perspective and philosophy has been in my environment since birth.

T. A. Rosolowski, PhD
0:19:11.6
What were you learning about yourself? When you were tasting what was the joy about? Was it palate? Was it community? What was it about those moments of tasting this great vegetarian cuisine that made you understand something about your own gifts and capacities?

Lorenzo Cohen, PhD
0:19:36.4
I guess growing up in Italy, when it comes specifically to diet, and eating primarily a Mediterranean diet since birth, that to me was normal. I didn't know anything different of course as a kid. So eating a little bit of pasta and then having the next two or three courses was normal. We never really had dessert. We always had a really well-balanced meal. And when it became quite apparent that this wasn't normal is when I would go to other people's houses and we would have Kraft macaroni and cheese and TV dinners and this was again back in the early '80s and the late '70s. I when I wasn't at home ate a horrible diet. Our school didn't have a cafeteria, the high school. And so for two years I was at a conventional high school that didn't go so smoothly education-wise. And there was fast food joints. And that's what we ate.
0:21:08.7
Actually in my seventh grade -- eighth grade I was in England -- in seventh grade was at a conventional high school. And we'd go out for lunch, whatever nearby. And it was McDonald's and Burger King and we just lapped up that stuff.
0:21:32.5
But the preference was always the Mediterranean food. It had more flavor, it's just what I knew. What was remarkable that I knew early on of course was the difference between fresh food and not fresh food. Because in Italy at that time literally everything we ate vegetable-wise came from the garden. We had a full-blown garden which was at its peak in the summer. And we had farmers that farmed the garden. Very quickly when of course sharecropping ended always there was a lot of strife during that time because of the cost of the farm. So when the sharecroppers went to salary, they weren't just fired. They went to salary. We had to pay their salaries. Well, it was a working farm, but it wasn't a financially viable farm outside of sharecropping, because there were six full-time farmers and the wine sucked and was sold for next to nothing. The vegetable garden was just for our consumption. And there was the olives and there were some animals. But it was a huge financial loss.
0:22:58.9
So for me the farm represented summer and fun. For my parents it represented anxiety and strife and arguing about how to make ends meet and stuff like that. But the food out of the garden was just unbelievable.

Interview Session: 01
Interview Date: May 4, 2016

Chapter 02
A Path to the Emerging Field of Health Psychology
A: Educational Path;

Codes
A: The Researcher;
C: Professional Practice;
C: The Professional at Work;
D: Understanding Cancer, the History of Science, Cancer Research;

T. A. Rosolowski, PhD
0:23:14.1
So tell me this. Why aren't we sitting in your restaurant in New York City doing this interview? Or why aren't we sitting in the kitchen in your farm someplace because you've been growing organic grains for the slow dough movement? How come we're not doing that? How come we're sitting at MD Anderson?

Lorenzo Cohen, PhD
0:23:33.3
The restaurant is an easy answer. But I sometimes wonder why I'm not sitting on the farm in Italy instead of being in Houston and leading a different life. So in university I started college, I went to Reed College.

T. A. Rosolowski, PhD
0:24:07.3
Why did you choose Reed?

Lorenzo Cohen, PhD
0:24:08.7
It was my reach school and I got in was one of the reasons. I didn't know much about -- my dad was American and he went to Columbia as an undergrad at 16, just a minor, high achiever, and then went to graduate school in Berkeley and then at 20 he got a job, assistant professor at Yale. So luckily I didn't know too much of that early on because or else it would have been how am I ever going to live up to that.

T. A. Rosolowski, PhD
0:24:40.9
The Anxiety of Influence.

Lorenzo Cohen, PhD
0:24:43.0
Sixteen and you go to college, it's really -- he said he was too young. And of course sending your kid to New York City from Memphis, Tennessee. He's a good old boy from the South. So I didn't know much about the college. I did very poorly in standardized tests because the school I went to was a -- you know Post Oak here, Post Oak Montessori. It'd be classified as an alternative education school, so we focused more on substance than on those sorts of tests. So I didn't have a ton of options for colleges. But I only applied to the states because I knew I wanted something small and had to be intimate, personal, enriching. And Reed was a fabulous fit for me and --

T. A. Rosolowski, PhD
0:25:42.9
Did you think you were going to go into the sciences?

Lorenzo Cohen, PhD
0:25:43.5
Yeah, I was always interested in actually marine biology.

T. A. Rosolowski, PhD
0:25:50.5
Now that surprises me, given what you told me about your grandmother and the whole lifestyle you were attracted to. Why not the humanities?

Lorenzo Cohen, PhD
0:25:57.0
I had no interest in the humanities. I was always interested in marine biology, partly because of being an avid scuba diver from the age of 12, 13. And so went to Reed with the idea of biology major, with the end goal of medicine.

T. A. Rosolowski, PhD
0:26:26.3
Why?

Lorenzo Cohen, PhD
0:26:28.7
I don't know. I knew you were going to ask that.

T. A. Rosolowski, PhD
0:26:29.6
Well, I'm not trying to be aggressive. It's interesting.

Lorenzo Cohen, PhD
0:26:33.8
I'm not sure why. Why medicine? So there was one -- no, I guess that wasn't. No. I don't know. I was always interested in health and in medicine. But more from the science side. But when I got to Reed, Reed was extremely strong. It's a liberal arts college but extremely strong in the sciences. At that point it was ranked as the number one biology program for liberal arts colleges. So not comparing to Stanford or Harvard of course. But the like category.
0:27:29.5
So very strong in the sciences they were considered. When they originally founded the college they wanted to call it the Reed Institute of Technology comparable to Caltech.

T. A. Rosolowski, PhD
0:27:40.3
Oh, I didn't know that.

Lorenzo Cohen, PhD
0:27:41.1
But it evolved into being this more liberal arts college. So I started in biology. And very early on it was clear that I had to not only have that major declared, but even within biology, I had to choose who I was going to work with. So Reed, the best metaphor is it's like a prep school for grad school, 80% or 85% of the graduates go on and get a subsequent degree. And a huge percentage PhDs or MDs. So like grad school, you specialize within your specialty. So I had to choose did I want to focus in evolutionary biology or cell biology. And I didn't want to do that. I wasn't even sure if -- the amount of work that I was going to have to do in biology and how focused I was going to have to be for my four years really cut out a lot of other opportunities. I was not so thrilled about chemistry and the prospect of having to do organic chemistry was frightening and it was a -- organic chemistry is notoriously a difficult program, but the average for the organic chem exams was 24%. And it just didn't resonate.
0:29:23.4
If the average was 24% and the best kid couldn't even get half of the exam questions right, what are you teaching? This doesn't make sense. Do you want them to actually learn?

T. A. Rosolowski, PhD
0:29:38.3
Or even why are you teaching.

Lorenzo Cohen, PhD
0:29:40.3
Yeah. And is your method of teaching -- it almost seemed -- anyway that's an aside. But it became clear I had to specialize, and I wasn't interested in specializing. And a friend of mine

said, "Well, I just took psychopharmacology in the psych department and it was all medically oriented." Psychopharm. It was the pharmacology of the body essentially. I didn't even know what that really meant. So I hadn't taken psych 101, but because I had the bio and the chem I was able to take psychopharmacology. And then there was a psychophysiology course. And then I got totally turned on to psychology and the link between psychology and biology.

T. A. Rosolowski, PhD
0:30:38.2
Now was it kind of a new field at the time or growing field?

Lorenzo Cohen, PhD
0:30:40.9
Well, psychophysiology and psychopharmacology weren't that new. But health psychology, which is a course that I took in the psych department, was relatively new at that time. And I was looking on my bookshelf because I thought maybe I had my original health psych book. And so then I switched out of biology and became a psych major, with a strong emphasis, and working with two professors in particular, one was a behavioral psychologist who was a graduate student of B. F. Skinner's, and then the other one was the psychopharm psychophysiology person.

T. A. Rosolowski, PhD
0:31:28.3
What were their names? Do you recall their names?

Lorenzo Cohen, PhD
0:31:30.9
Yeah, Allen Neuringer. I think he's still a professor there. And Dell Rhodes as in Rhodes scholar. So Allen was the student of B. F. Skinner's. So he had quite the pedigree from Harvard and all that. So I guess it was in my junior year where really my psych career really took off. And I just was embedded in doing these experiments. It was all animal. I did some human research but primarily it was animal research and looking at the effects of drugs on behavior and understanding the experimental method and how to design studies and collect data. My undergraduate thesis we published in one of the top APA journals. I actually didn't even know that that was that meaningful, because there was so much high quality work being done around me. After, I realized oh, most people don't publish their undergraduate work in top peer-reviewed journals.

T. A. Rosolowski, PhD
0:32:45.0
What was the project you worked on, the thesis topic?

Lorenzo Cohen, PhD
0:32:50.2
Allen Neuringer's focus was looking at the concept of variability and whether you could teach animals to be variable. And at the time I didn't really understand the concept behind that, and issues around creativity. And so he had developed a paradigm. It was well known in the behavioral operant conditioning world of being able to train animals to be variable. It's easy to train them to do right right left left food right right left left food. But we were able to teach these animals to get food they had to do a pattern that was different than their last 10 patterns. And then being interested in drugs and that kind of thing and the impacts on health. What would alcohol do in this situation?
0:33:48.3
And so I did a study with pigeons and a study with rats showing that alcohol actually will disrupt their ability to engage in, learn, and maintain this more complex behavior of understanding the principles of the reward system.

T. A. Rosolowski, PhD
0:34:14.1
Interesting.

Lorenzo Cohen, PhD
0:34:14.8
So graduate from Reed.

T. A. Rosolowski, PhD
0:34:21.8
And that was 1987 you got your BA.

Interview Session: 01
Interview Date: May 4, 2016

Chapter 03
Professional Goals Coalesce During a Post-Graduation Gap
A: Personal Background;

Codes
A: Character, Values, Beliefs, Talents;
A: Personal Background;
A: Professional Path;
A: Inspirations to Practice Science/Medicine;
A: Influences from People and Life Experiences;
C: Mentoring; D: On Mentoring;
C: Formative Experiences;
C: Discovery, Creativity and Innovation;
C: Faith, Values, Beliefs;

Lorenzo Cohen, PhD
0:34:23.5
Yeah, and then I ended up doing two years of gap. At that time we didn't call it a gap year. But in my first year I went to live with my grandmother in Italy for a year to get to know her. And one of my key mentors who I met at 15, who was actually -- at that point I'm not sure what he was. He ended up becoming a successful photographer, but he was drifting in life and doing odd jobs here and there but got connected with our family and was a super intelligent, challenging person, who was really leading a pure life with no apologies, and leading the philosophical side of life, of lead life as if this is your last day on earth.

T. A. Rosolowski, PhD
0:35:29.8
What was his name?

Lorenzo Cohen, PhD
0:35:30.4
Arthur Patten. And he really was leading his life in that way, and that just really turned me on when I met him at 15 and was struggling with high school. But I won't go into all the details in my high school misbehaviors. But we can go on the record saying that I'm glad my kids aren't like I was in high school. Not sure how my parents survived.
0:35:55.9
But Arthur was very influential, accepting me as somebody who was not quite on the path. And seeing that Arthur was not on the path, he was making his own path. And it's like wow, that is cool.

T. A. Rosolowski, PhD
0:36:15.8
Seems like your grandmother was like that too. Sounds like you were attracted.

Lorenzo Cohen, PhD
0:36:17.9
She was totally like that, but at the same time she was raised as an aristocratic -- she grew up in a villa. Arthur though grew up in an aristocratic family and said, "Screw you. I'm hitching across the country to San Francisco to explore my sexuality. And thank you very much, I don't need you anymore."

T. A. Rosolowski, PhD
0:36:45.4
Or don't thank you very much.

Lorenzo Cohen, PhD
0:36:46.7
And he did it to his death on his own. And there's an interesting backstory, which is that when Arthur went to San Francisco, he had some connection and got a job as a truck driver for an antique dealer and this antique dealer somehow knew my grandmother. So when Arthur was saying, "I've enjoyed, I'm going to go and travel around Europe, and I'm interested in exploring Italy," he said, "Well, when you go to Italy make sure you visit Vanda Scaravelli and say who you are and that I sent you." And so he does that, and then he becomes lifelong friends with my family.
0:37:44.8
One of the key people who worked for that antique dealer is Alison, my wife's, great-uncle. We didn't find this out until our wedding when Arthur said, "The only reason I will come to your wedding is if you let me take formal portraits of all your guests." So he set up literally a portrait studio. And when I brought Alison's great-uncle into the room to introduce him to Arthur they were like they knew each other from 40 years ago.

T. A. Rosolowski, PhD
0:38:16.3
Oh my gosh, that's crazy, how amazing.

Lorenzo Cohen, PhD
0:38:19.7
So it was really chilling that our two families were connected before we were potentially even born. It was like around the time that -- it's really weird.

T. A. Rosolowski, PhD
0:38:32.8
That is amazing, that is amazing.

Lorenzo Cohen, PhD
0:38:34.9
And that Arthur of course was such an influential figure in my life. So how did we get off on Arthur?

T. A. Rosolowski, PhD
0:38:42.6
Inspiration, the next step.

Lorenzo Cohen, PhD
0:38:43.9
Oh, right, so I did my gap year in Italy. So Arthur is the one who said, "If you want to get to know your grandmother," which was the purpose of going to Italy, because I of course knew what a special person she was, "you either have to take yoga lessons from her or piano lessons from her or both." She was also a concert pianist trained in the Florence Conservatory. But being a woman, she was never -- but she had concert pianists come to her, and she would play for them. They would play for her, and she would give them critique.

T. A. Rosolowski, PhD
0:39:22.9
The coach.

Lorenzo Cohen, PhD
0:39:26.2
So again all during childhood I would hear Beethoven and Mozart sonatas, and she had a grand piano and a baby grand and music was always in the house.

T. A. Rosolowski, PhD
0:39:38.4
So did you take his advice?

Lorenzo Cohen, PhD
0:39:41.6
So I did both. I took daily yoga lessons from her, and then she didn't teach me to read music, but just taught me a few Bach. The pieces from *The Well-Tempered Clavier*. And I didn't really learn how to play the piano but I certainly learned how to play those two pieces. And I learned

issues around discipline of piano. But yoga of course is something that certainly was easier to learn, at least superficially, to begin with, than learning piano.

T. A. Rosolowski, PhD
0:40:20.0
What did you learn about your grandmother and about teaching from that whole experience?

Lorenzo Cohen, PhD
0:40:28.0
What was very interesting about taking both piano and yoga from her is although they physically look different from the outside, her method of teaching was essentially the same. It had to do with breath. It had to do with energy. It had to do with focus. She was a very disciplined person. During that time she was writing her book, *Awakening the Spine*, which was a yoga book that we all convinced her to write.

T. A. Rosolowski, PhD
0:41:06.4
Oh, neat.

Lorenzo Cohen, PhD
0:41:07.5
So it was first published by HarperCollins in ’91, so I was there in ’88, and she’s the first person I saw using a standing desk. She typed the whole manuscript on this ancient manual typewriter for most of the time with the typewriter on her piano, on this baby grand, and standing there typing away this book. And I was there and helped her. She would bring me sheets and say, “What do you think of this? Is this written OK?” I wasn’t the editor for it, but I was just there while it was happening.

T. A. Rosolowski, PhD
0:42:00.3
That kind of thing is so important. I realized that when I got into the academic part of my career. Realizing that I’d watched my dad write his PhD. Seeing someone do that kind of work, seeing the micro portions of the process, demystifies it, and I found it may easier for me to accept what my process was. Just having some kind of image of what that kind of high level intellectual work looked like. I don’t know if you felt the same way about your experience with your grandmother.

Lorenzo Cohen, PhD
0:42:36.5
Yeah, what resonated the most was the aspect of discipline. So every day she would wake up and she would do her practice, probably starting at 4:00 in the morning, and I wasn’t awake for

that. But doing her yoga, her breathing. I would come be her first student, essentially daily, for the time I was there. And then her students would show up after my lesson and she had about six or so students. She only taught one on one. She never took group. And she only taught teachers. So I was this chosen one, at least within the circle. And then her students, they were all 20-year veteran yoga teachers, and they would come for their lesson. And then we would all eat lunch together. And that was the morning.

0:43:43.3

And then the afternoon at least when I was living with her she played the piano and wrote her book. It was really intense. There was lots of other things that we did during the day, and she had other commitments, and she would teach piano, and somebody would come and play something for her. When I was younger she would go and actually teach in a number of different places. I'm not sure the details of who these students were.

T. A. Rosolowski, PhD

0:44:16.9

But sounds like the center of her life was really with yoga, music, her communities of people she was connected with. That's very cool.

Lorenzo Cohen, PhD

0:44:20.5

Absolutely. Yeah.

T. A. Rosolowski, PhD

0:44:23.1

Did she have a pet name for you?

Lorenzo Cohen, PhD

0:44:25.2

No. Italians don't do a lot of abbreviations. You do Alessandro, my son, and people would call him Sandro. But no, and I called her Vanda.

T. A. Rosolowski, PhD

0:44:36.7

Oh, you did. How would you describe your connection with her?

Lorenzo Cohen, PhD

0:44:44.7

I don't know. She's my main mentor. She's so unique person.

T. A. Rosolowski, PhD
0:45:09.5
Is she still with us?

Lorenzo Cohen, PhD
0:45:10.3
No, she died in '95. That morning did yoga and had a cerebral hemorrhage and ended up living for like two weeks when she really shouldn't have. And the doctor essentially said, "She has the heart of like a 40-year-old, so it's not going to give up on its own quickly." Even though she mentally was in a coma. Two weeks. Yeah, it was hard on my mother in particular. I didn't love the process, but I was there for the whole process and was literally in the room when they called it. It was quite an experience. It wasn't negative at all. And in fact there was no sadness because I knew, I think, she was ready. She wasn't able to do the poses exactly the way she used to be able to. And she'd done what she needed to do.

T. A. Rosolowski, PhD
0:46:17.2
I'm glad you were there. That's neat.

Lorenzo Cohen, PhD
0:46:19.1
Well, I wasn't when she had the cerebral hemorrhage.

T. A. Rosolowski, PhD
0:46:20.6
Right, but towards the end.

Interview Session: 01
Interview Date: May 4, 2016

Chapter 04
Identifying a Purpose and a Graduate Focus in Health Psychology
A: Professional Path;

Codes
A: The Researcher;
C: Mentoring; D: On Mentoring;
A: Inspirations to Practice Science/Medicine;
A: Influences from People and Life Experiences;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
A: Personal Background;
A: Professional Path;

Lorenzo Cohen, PhD
0:46:21.7
Yeah. So that year was spent with her and getting to know her and doing a lot of yoga. I had friends who came in to the farm and were hanging out. And what's interesting is India was a very influential factor in certainly my grandmother's life and in her son's life, my uncle, who was very influential in my life, macrobiotic gardener and vegetarian and an unbelievable cook. He really took cooking to a whole other level.

T. A. Rosolowski, PhD
0:46:57.5
I didn't ask you his name.

Lorenzo Cohen, PhD
0:46:57.1
His name was Alberto like his grandfather. And he had always dreamed about going to India. He was an incredible traveler. He instilled in me the -- what's the right word? The mystique or the -- why am I not thinking of the word? Romance of travel. So he dropped out of Exeter because he was sent by his mother to Exeter because Exeter would be the best school, and to get your education. And he just wanted to be loved and hugged. His dad commits suicide when he's 10 and he's shipped off to Exeter. My mother is shipped off. This person did not want to be a mother. I feel sorry for my mother and her brother. But she was this free yogi there for the world. So anyway he rejected that and just traveled. He actually disappeared and hitchhiked and hitched a freighter, it's all this romantic stuff in my mind.

T. A. Rosolowski, PhD
0:48:26.3
Like Arthur.

Lorenzo Cohen, PhD
0:48:28.2
Like Arthur, exactly. And they would stay up for hours arguing. And so anyway my uncle was really smart and extremely well-read. Both he and Arthur, not formally educated, but because they were so innately smart and had the basics, they were voracious readers. So they knew history, they knew current events, they knew politics. But my uncle particularly loved Homer and the *Iliad* and the *Odyssey*. And they were his Bibles. He knew ancient Greek philosophy and these stories in particular. So as a young child in Italy every summer I always remembered he would recite the *Odyssey* in particular, not with the book in front of him, just telling it like bedtime stories of the adventures of Odysseus. And he tracked where Odysseus went. And he went and he traveled that route. So I always knew him as this great adventurer and traveler.

T. A. Rosolowski, PhD
0:49:43.9
That is a romantic sensibility.

Lorenzo Cohen, PhD
0:49:49.5
Yeah. And his great dream had always been to go to India because he was exposed to all this Eastern philosophy through his mother, through Iyengar, through Krishnamurti. Do you know who Krishnamurti is?

T. A. Rosolowski, PhD
0:50:03.4
Yes.

Lorenzo Cohen, PhD
0:50:05.9
So he was a huge influence in Vanda's life. He came every summer. She would host him in Switzerland. They were -- some were questioning how close, but that's not relevant. Very close. He literally wrote her every single day of his life on a pad of paper. He would have these entries. And then he would put the whole pad in the envelope and send it. So after Vanda died we found all these boxes of correspondence from Krishnamurti to her.

T. A. Rosolowski, PhD
0:50:40.8
For the record, why don't you explain who Krishnamurti is?

Lorenzo Cohen, PhD
0:50:42.4
Oh, sure. J. Krishnamurti is a very well-known Indian philosopher. He's no longer alive. Was originally part of the Theosophical Society, which was -- I don't have enough time to get into what the Theosophical Society is. But started by actually Europeans in India as originally I think a Russian -- Blavatsky and then Annie Besant, who became a very well-known women's rights activist in England. So in Madras, at that point in time it was called Madras, India, they formed this organization called the Theosophical Society, with aspects of -- I'm not that actually familiar with the tenets of the Theosophical Society. But they have an educational model and Eastern philosophy, etc.
0:51:45.7
And so Krishnamurti claimed to be an enlightened individual who's found at a young age by the leaders of the Theosophical Society and brought into that organization, was educated in England, very -- an aristocratic upbringing, although he was born from a poor Indian society. And then at a young age separated from the Theosophical Society because his philosophy, which is a beautiful philosophy, is there are no leaders, there are no masters. We are our own masters. There's no such thing as gurus. This is all a bunch of BS. And everyone needs to ultimately find their own way. And so he split away. And he said, "Being part of the Theosophical Society is anathema to what I have discovered in my enlightenment."
0:53:03.4
Of course in splitting away and being such a charismatic, physically beautiful human being, he had this whole organization form around him. And there's now the Krishnamurti Foundation, there's Krishnamurti schools all over the world. And stuff happens when you have very powerful people, even though they say there shouldn't be organizations. Organizations form.
0:53:32.6
So that's who Krishnamurti was. And Vanda was extremely close with Krishnamurti and connected with him until his death. And what was interesting is that the relationship between Krishnamurti and my family actually predates Vanda's connection with Krishnamurti, which goes back to when I think Vanda was in her twenties, and her older sister Hilda had an incurable brain tumor. And her and her father, Alberto, had heard about this healer who was part of the Theosophical Society. So her mother, Clara, a Swiss Protestant, her father, Italian Jew, in Italy. So Jewish Protestant. She married a Catholic guy, but he was a Kantian philosopher. So obviously he wasn't religious. And you wonder why I do alternative medicine?

T. A. Rosolowski, PhD
0:54:40.3
It's making sense.

Lorenzo Cohen, PhD
0:54:43.4
So when she was in her early twenties of course she had this trauma that her older sister that she admired had this brain tumor. And her mother was part of the Theosophical Society, which was this weird Eastern thing, even though she was this very proper Swiss Protestant with the gloves and the keys and all of that as head of the household. So they went off to Belgium I think it was where this guy Krishnamurti was holding talks, and he was claimed to be a healer. So I think they met Krishnamurti after that and said, "Can you come and cure our daughter, my sister?" And he's like, "No, I don't do that kind of thing." And then they were disappointed. But then Alberto loved what he heard and he said, "Well, I want to host you at my house." And then the relationship was formed. So it was through her father that Krishnamurti started coming regularly to Italy. And then after he died Vanda kept up the tradition of hosting him in Italy and then hosting him in Switzerland.
0:55:57.2
So actually I've done energy medicine research at MD Anderson where we brought in a healer who claimed that he could shrink tumors with his energy. We actually published a negative trial that didn't work. And that's a whole other story. But I knew the story about Hilda and Krishnamurti and healer from as a young child.

T. A. Rosolowski, PhD
0:56:24.6
What did you think about it as you grew up?

Lorenzo Cohen, PhD
0:56:25.2
Well, it didn't really mean anything early on. Because I always knew about Krishnamurti because he was such a strong force in Vanda's life from the time I was born certainly. I knew he was a special man. Some people claimed he was a healer. I don't know of any evidence that he was a healer. He didn't claim himself to be a healer. He was just a philosopher who gave lectures and helped people lead more meaningful lives.

T. A. Rosolowski, PhD
0:56:59.0
I guess what's really striking me as you're talking is that the people in your immediate circle who really have importance for you are people who they've made a real commitment to a way of shaping their lives very intentionally, and that those lives not only include work, but there's an overlap between work and a personal philosophy or some kind of official philosophy that's studied. It's a very integrated way of structuring your life. Unlike the ordinary American that oh, I'm organizing my life around going to the mall and what I buy and what fast food I stuff in my face. There are more intentional choices. A personal, emotional, perhaps at some times

spiritual, commitment to the choices that are being made. It's just really interesting that you were steeped in that kind of environment from the word go basically.

Lorenzo Cohen, PhD
0:58:00.2
I only met Krishnamurti a couple of times. And I was relatively young but of course knew of him and what he did. But Vanda, Alberto, Krishnamurti, Arthur, there was no separation between a work life and a home life, and it was life. It had a singular purpose. Alberto had to put food on the table, and Arthur had to be able to eat. But life was the journey. And wanting to intentionally be doing things that were meaningful. And of course meaning comes at all different levels for different people.
0:58:53.7
I got to see that of course a lot more. When you're a high school kid particularly, I was a little misbehaving high school kid. A lot of the stuff of course wasn't resonating. But it was actually Arthur that turned that on in me. But then spending the year with Vanda. So the reason we had this long side road here about India and Krishnamurti is that Alberto, who had planted the seed of adventure and the romance of travel in me, had always had India as his ultimate place to go because he was exposed to Iyengar who was his yoga teacher and Desikachar who was the yoga teacher of Krishnamurti and my grandmother. And Iyengar was always around. India was this ultimate destination. And Vanda, people always assumed that she went to India every year. And her response was "No, India came to me." They came to her house. During this year I built up my time with her.
1:00:12.9
Worked with Arthur to plan a trip to India in terms of what are some of the destinations. So I took off on my own and went and traveled in India for about three months. It was during that time -- and I actually cut my trip short. Because it was traveling around that I realized -- I focused my trip on going to ancient sites and again getting to the site was part of the adventure and the purpose. But I had this goal of going to these key historical sites. And I only went to southern India, I didn't go north of Mumbai.
1:01:10.0
I actually had really interesting run-ins with Iyengar, who I didn't originally see. I went to Pune to deliver a gift from Vanda, and he happened to not be there, he was off somewhere. And then I'm in the middle of nowhere in this desert town having dinner by myself, and in walks Iyengar and his entourage. So it was very funny. And then I saw him in another -- two weeks later I'm at a temple and I feel somebody's watching me. And I turn around and there he is with his entourage again.

T. A. Rosolowski, PhD
1:01:45.6
That's wacky. It's a huge country.

Lorenzo Cohen, PhD
1:01:48.7
Kind of huge with a billion plus. So it was during that time actually I'd meet up with different people and travel. So you're never on your own when you're traveling on your own. And there was this one couple that I met up with at one point near the end, because this was the lightbulb that went off. They're just aimlessly traveling around with no purpose. And I thought at that point I need to now go back and do something with purpose. My time in India is starting to become purposeless. And what I also realized at that point -- because still even though I didn't do a full premed and I had not done organic chemistry I had in the back of my mind McMaster Medical School. McMaster Medical School is in Hamilton, Ontario just outside of Toronto.
1:03:00.5
They're the ones who developed problem-based learning that then of course every medical school in the world adopted. They had a very I guess you could say alternative approach to educating doctors. That of course really appealed to me. And they accepted people who didn't have full premed backgrounds. My intention was to apply to McMaster, and whether I got in or not I didn't know. And to go into medicine. And I realized, just like I realized in my first year at Reed, that I was going to have to specialize, and that I would have to become a cardiologist and only focused on the heart and ignore the rest of the body, or I would have to focus in oncology and focus on one particular organ, etc., etc. Obviously there's family medicine and internal medicine if you're more of a generalist. But that was almost too general for me.

Interview Session: 01
Interview Date: May 4, 2016

Chapter 05
A Graduate Focus in Health Psychology
A: Professional Path;

Codes
A: The Researcher;
C: Mentoring; D: On Mentoring;
A: Inspirations to Practice Science/Medicine;
A: Influences from People and Life Experiences;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
A: Professional Path;

Lorenzo Cohen, PhD
1:04:07.2
And then I remembered that as an undergrad at Reed I took a course called health psychology and realized that maybe I could focus there. So I could be in medicine but with what really turned me on, which was the psychological side of things, and psychobiology. I wonder if that could be an undergraduate degree. And at that point, which was -- I started grad school in ’90, so it would have been ’88, ’89, looking around the country, there was really only three programs. One at UCSF, one at University of Miami, and one at Uniformed Services University of the Health Sciences in Bethesda, Maryland, which is of course where I ended up going.
1:05:07.1
The other two were very clinically oriented, meaning that you would get a degree in health psychology but you had to be a clinical psychologist. And I didn’t have any interest in being a clinical psychologist and the stereotypical clinical psychology, helping and listening to other people’s problems. That wasn’t what I wanted to do. I wanted to go into research.
1:05:33.2
So I decided to take another year to be a research assistant in Toronto and to live in Toronto, which was where my parents were. I lived in the basement, the typical kid after college going back home. But I had a full-time job and was a research assistant actually for a developmental psychologist.

T. A. Rosolowski, PhD
1:05:55.5
And where was this?

Lorenzo Cohen, PhD
1:05:54.2
University of Toronto. For Joan Grusec. And what was really interesting about that experience

is she gave me tons of autonomy as a research assistant. I knew absolutely nothing about developmental psychology. But I was so well trained as an undergraduate. Not because I'm necessarily that smart, but because the program was just phenomenal at Reed. They treat you like a graduate student. So I was treated like a graduate student, expected to act like a graduate student, did work at the level of a graduate student. And so when I joined Joan's lab I was really her only research assistant. She had this grant and this project. And I really worked with her as a colleague and helped contribute to it and helped in the design, and developed some measures that didn't end up revealing that much, but we added it to the study, and she included me as a coauthor because she felt I contributed meaningfully.

T. A. Rosolowski, PhD
1:07:01.5
What was the project?

Lorenzo Cohen, PhD
1:07:02.9
It was actually to look at the development of altruism in children. And her area of focus at that point was to understand the role of household chores in the development of altruism.
1:07:26.2
In particular the question of this study that we did was what is the role of assigned household chores for self or for other for the family. So what do you have to do chores-wise in reference to cleaning your room, making your bed? Or do you also take out the garbage, empty the dishwasher, prepare a meal? And then we had measures of prosocial behaviors, we did formal semi-structured interviews with the kids, with both the parents. All these different questionnaires. This was a new research area for me because as an undergraduate as I described to you I was playing with mice and pigeons. So there was not too many -- it was all very objective data. Now I'm literally in people's homes collecting this data.
1:08:22.6
This is what I developed for the study but it didn't show a difference between groups. Partway through the interview I would break my pencil. And then I would start counting to see did the kid respond, do they say anything. I start fumbling around, do they offer, "Do you want a pencil? Do you want a pencil sharpener?" At another point in the interview I drop the papers on the floor. And then I start counting. How long? Do they move? And try to position it in a way that was valid.
1:08:59.7
But of course this was the first human-based research that I got involved with. But learned about questionnaire stuff. And so this was all pre grad school. And so that was a great experience. Being so part of the research study and valued by the mentor. So then off I go to Bethesda, Maryland, which is where Uniformed Services University of the Health Sciences is.
1:09:37.0
And my primary mentor there, Andy Baum, was already relatively well-known as a chronic

stress researcher. He was one of the founders of the field of health psychology. The American Psychological Association has a division that's called Division 38 which is Division of Health Psychology. There's an APA journal that's called *Health Psychology*. And he's died now, he didn't certainly follow the practice of health psychology. Before I met him he had been a chronic smoker, horrible diet, overweight, never exercised, chronically stressed. A very harsh mentor.

T. A. Rosolowski, PhD
1:10:39.4
Why do you say that?

Lorenzo Cohen, PhD
1:10:39.8
He had a temper. I was never the recipient typically.

T. A. Rosolowski, PhD
1:10:57.5
What did you learn from all of that experience with him? His mentoring style.

Lorenzo Cohen, PhD
1:11:03.3
So he said -- this is at the time I was graduating. So he was a chronic stress researcher and studied in particular Three Mile Island. The interesting thing about the nuclear disaster at Three Mile Island, he was trained as a social psychologist, is that there was no actual meaningful release of fallout, nuclear material, into the environment, but the people lived still in this neighborhood, and they would see the stacks every day. So this was a naturalistic stressor of the people continuing to live there. And then he would have comparison cohort groups. It was a naturalistic manipulation.
1:12:04.6
Actually during my time and somebody who was a couple years ahead of me, we started focusing on the immune system. So with Three Mile Island he actually collected urine samples and looked at stress hormones and he did objective behavioral measures. There was this very strange but something called the proofreading task. And he was able to document that people who were chronically stressed were less accurate at proofreading. So we would have them read two pages of text and they have to circle all the errors in punctuation and spelling and stuff like that. And chronic stress interferes with that ability, controlling education and everything.
1:12:52.5
So during my time in his lab he started to incorporate immune function. And so Uniformed Services University of the Health Sciences, it's important to note, is a medical school. And so we were in a medical school. But part of the graduate program. And it's a medical school that was founded by Jimmy Carter for educating medical doctors. So up until that time the military

would pay for their med students to go to other medical schools. And they of course continue to do that today. But they felt that there needed to be a med school that was specifically training military doctors, because there was things that they needed to learn that were very unique to the theater of war. Very forward-thinking, one of the founders of the school said, "We have to have a medical psychology program to deal with the very real issue of stress." So the graduate faculty of course of this program, most of them actually had no interest in the military. None of them were military-oriented. And they had focus on -- stress and cardiovascular disease was one of the folks. Stress and addiction was one of the other folks.

1:14:21.2

My mentor was stress and psychobiology, and in particular the immune system. So we had an interest not so much at that time in HIV at that time and then shifting into cancer. What Andy said to me at the time that I was graduating was "I didn't teach you anything. You came in here knowing everything that you needed to do to be successful as an academic scientist." Although I was really well trained at Reed and my experience with Joan Grusec in Toronto, he taught me how to write grants. He taught me how to have super high expectations of my graduate students and postdocs.

1:15:16.1

So he required of graduate students that before you could even get to your dissertation you had to be part of other people's research and be the research assistant, but then you ultimately had to run your own study from beginning to end, before you were even allowed to do your dissertation.

1:15:44.7

Most of my graduate students I've had here -- and I haven't had a lot -- for their dissertations they've done their own clinical trial. I'm primarily a clinical trialist, so that's what I do. And postdocs, it's the same thing. So as a postdoc I'll hire you, and you'll work on my things, but you must have your own project that is yours that you do from start to finish.

T. A. Rosolowski, PhD

1:16:19.3

It's interesting. So it sounds like he was really a hard taskmaster, but he didn't want to create clones. He wanted people to be intellectually independent.

Lorenzo Cohen, PhD

1:16:28.9

Yeah. And he passionately cared about what he did. I'm not sure he instilled in me where I am today, where I really want to only be engaging in research that I know will make a difference and will potentially improve the lives of those who we are here for, and in a more dry way changing the standard of care. He was more of a methodologian, and almost setting up experiments to be able to test theories. So more of a classical social psychologist in that sense. But doing it in a real-world environment and within the medical system.

T. A. Rosolowski, PhD
1:17:42.3
Interesting. What about the rest of your experience there, outside of Andy Baum's lab?

Lorenzo Cohen, PhD
1:17:51.3
In grad school?

T. A. Rosolowski, PhD
1:17:54.9
Yeah, when you were in your PhD program.

Lorenzo Cohen, PhD
1:18:03.2
What was very unique about the school, and why it was for sure my best choice of the limited options at the time -- and the field has evolved and there's whole societies now and most psych programs have health psychology as a specialty. Rice has just expanded theirs and hired actually Dave Wetter away from MD Anderson to start their health psych program.
1:18:30.1
So what was remarkable and the most influential for me during grad school was the medical school courses. So as part of the requirements to get your PhD in medical psychology, you had to take the medical school courses. And you could pick and choose some, but some were required. We had to take medical physiology, and we had to take pharmacology. We were allowed to take the courses pass-fail, but we had to pass. So you still had to study for the exams. And why that was important is because if we had to just audit them we wouldn't have crammed like all the medical students were doing to actually learn endocrinology and all the details and neuroanatomy and all the rest of it.
1:19:28.4
So you know from earlier on I was interested in medicine but didn't really want to specialize. So this gave me the best of all worlds. And those courses were the most important. I could crack open a social psych textbook and learn about these awesomely fun experiments, the Milgram experiment and the prison experiment, and all these manipulations you do in the lab with these psych experiments. But the only way I was going to learn human physiology is if I had to take a course and read the textbook and had an exam at the end of that quarter. And so I really learned endocrinology. I took immunology because I had a particular interest in the immune system and stress and all of that. The mind-body connection.

T. A. Rosolowski, PhD
1:20:24.1
What was happening to your perspective at this time? This was a little bit of a new experience. What was changing for you at this time?

Lorenzo Cohen, PhD
1:20:37.2
It became very clear very quickly, and partly because of Andy's personality. He said to me, "Don't you want to be like me one day?" And my knee-jerk response was "That's the last thing I want to do is become like you, having 13 graduate students, and you're the editor of a journal and the head of a society, and all these responsibilities." Flash forward, and I'm doing exactly what Andy was doing, and even bigger, unfortunately. But he loved it. His energy came from what he was doing. The contribution he was making to the field. That of course really seemed appealing, to be getting so much satisfaction from your day job.

T. A. Rosolowski, PhD
1:21:36.0
Did you have any sense that this was a great field to be in because it was forming, and you'd have a chance to make a mark? Was that part of your thinking at all?

Lorenzo Cohen, PhD
1:21:45.4
Not because I would have a chance to make my mark, but because everything was so new in this field, and creating these connections. So this was back when they were early on trying to disentangle why type A behavior was leading to increased rate of heart attacks, and then really showing that it had to do with anger and hostility. It wasn't just being a driven person. It had to do with this emotional side. We were actually looking at the biology and understanding well, how does anger and hostility get into your blood as the mechanism for increasing heart disease. So I was actually a research assistant on another graduate student's research project, who was working with a different mentor, where he would bring people into the lab and acutely stress them.
1:22:54.1
And we drew the blood and we did assays on it, and we measured platelets. And we actually documented, it was one of the earliest studies documenting this, that acute stress speeds the time at which platelets clot, meaning they clot faster, which of course evolutionarily speaking is great if you're stressed. You don't want to bleed out if you're caught by the animal, and most stress evolutionarily speaking was due to predators. But these people were just sitting in a room being yelled at.

T. A. Rosolowski, PhD
1:23:27.2
For day after day.

Lorenzo Cohen, PhD
1:23:30.6
Well, this was just acute. You could document it in 15 minutes, your blood is going to clot faster. Which again, most of our stress evolutionarily speaking was acute. But then what happens when that acute stress becomes chronic? Day after day your platelets are clotting and clotting and clotting and clotting and sludging. And then all of a sudden you have a heart attack.
1:23:55.2
So starting to see and learning about cardiology and how the heart works that psychological processes -- because everyone in the group, even though I primarily worked with Andy, the salient variable that everyone was researching was chronic stress, because we were a psych department. We looked at other processes, but chronic stress was the backbone of all of it. Then how does social support buffer it? How does coping buffer it? How does meditation buffer it?
1:24:32.4
Andy wasn't an interventionist. Andy was a very pure methodologian. As students some of us did interventions with him, but most of us focused on documenting the harms of stress. And during that time was actually some early research that came out of the University of Miami that was influential on me, which was both exercise research as well as cognitive-behavioral stress management, back in I think 1990 was their first publication, showing that HIV-positive patients who engaged in cognitive-behavioral stress management for 10 weeks had better immune markers. And this was still in the early days of HIV, and being a fatal disease.
1:25:25.8
And so that really turned me on that you have this immunological disease that was a death sentence and that a psychological intervention that only lasted 10 weeks could modify the immune system, and potentially influence outcomes. They later did document that it actually did influence outcomes.

1:25:54.2
Then literally at the other part of the country at the top, you have Jon Kabat-Zinn who coined the term mindfulness-based stress reduction, taking these Eastern philosophies that I had been exposed to since I was born and bringing them into the medical world with meditation and yoga. That was his early research when I was in graduate school.

T. A. Rosolowski, PhD
1:26:32.2
Did cancer come into the picture at all at this point?

Lorenzo Cohen, PhD
1:26:36.4
Not as a graduate student. My very close colleague whom I continue to collaborate with today, we went through grad school together, she did a study of caregivers, of parents of kids with cancer. But didn't work with cancer patients at that point. My graduate thesis dissertation was a

means to an end. Andy had left. He went to Pittsburgh to head psychooncology at the Pittsburgh Cancer Institute. I was already far enough along that I had the choice. Do I just stay, finish up, do my dissertation, or move to Pittsburgh? And I chose to stay.

1:27:35.2

And I guess the seed was planted then. But my dissertation focus was actually again a means to an end, a manipulation in the laboratory around the acute stress of surgery and whether we can buffer the stress of surgery with information or different coping skills. And it was all an acute lab stressor. But I got embedded in the literature. And we were interested in the immune system of course. Embedded in the literature of stress during invasive medical procedures, and the role of information, predictability, active coping versus passive coping.

1:28:30.6

And I tried to manipulate in the lab. And the lab experiment wasn't that interesting in and of itself. But I had a fabulous background system, was immersed in that literature. And interestingly, I didn't know it at the time but one of the researchers whose research was very important in my background section was the research of Raph Pollock [Raphael Pollock, oral history interview]. And of course you know who Raph Pollock is.

T. A. Rosolowski, PhD

1:28:59.5

Yeah, I interviewed him.

Lorenzo Cohen, PhD

1:28:59.7

So Raph used to be the head of Surgical Oncology here, but he was fascinated, being a surgeon and doing horrible things to people, in how is this harming people. The surgery. Yes, he's curing sarcoma hopefully, but he's cutting into another human being, what are the negative effects? So he was really interested, as you probably heard, in the immune system and what happens to the immune system.

1:29:30.6

This is a physical stressor. The spiking of heart rate and blood pressure and the release of stress hormones. But there's also the psychology. And Raph wasn't as interested in the psychology. But I read that research that he was doing here, and of course others in the country, looking at the negative effects of surgery. So when I graduated it became clear as what you could call a card-carrying psychoneuroimmunologist in 1994 that I had the choice of HIV or cancer. We have evolved of course to learn that even cardiovascular disease is an inflammatory disease and the immune system is intricately linked, but we actually didn't know that in 1994.

1:30:25.4

It's really horrible to think how old I've become. So I had that choice. I was interested in HIV, but the world of cancer was of course totally unknown to me. But the possibilities seemed endless. And Andy wrote a very influential, to some people important, paper in health psychology. I think it was back in 1985 or '87, right when HIV was starting to enter our society

and increasing consciousness of it. It was just an opinion piece in health psychology because he had gotten to know what this disease was, at least what we knew at that time, in whom it was happening, which wasn't just gay men but of course that's where it started, and then of course it started to spread because heterosexual encounters and then blood transfusions, all the rest of it. Wrote this position paper that said that as health psychologists the HIV population is a phenomenal place to go and ask all your different health psychology questions. The mind-body connection, the influence of behavior on outcome.

1:31:48.8

So if you're interested in behavior, how do we get people to use condoms. If you're interested in interventions in coping, how do you do that. If you're interested in end of life, you've got that there. Issues of containing infection and the behavioral side of things. The link between maladaptive behaviors of drinking and smoking while you have an immune disease. You can ask those questions if you're interested in addiction. Any question in health psychology you could apply to the HIV population. And that resonated with me at that time in making this choice. For one, it doesn't matter which one I make, because I can answer any question I want in my career within this chronic life-threatening stressor whether we call it HIV or cancer.

1:32:50.8

I'm not a very -- at least at that point as much as I am today -- introspective kind of person. And there wasn't like this aha, oh, it must be cancer. Cancer actually hadn't really impacted my family that much except for the story I shared about Hilda. My grandfather actually had colon cancer, but he lived until 95. Not sure what killed him but he was 95, so it wasn't the colon cancer in his seventies.

1:33:30.9

So chose cancer, and in my second year of grad school met Alison on a Christmas vacation in Toronto, introduced by my mother. My mother was an art teacher, which was very useful when I was with Joan Grusec doing my research assistantship, because I had an in in a school. So I had access to all these families. It wasn't the most representative families. It was a private school. But anyway Alison volunteered the year, she was an intern at the school, and met my mother. And my mother thought she was great. And so when I came home one Christmas she was like, "Oh, why don't you come meet my son?"

1:34:19.8

So it was literally a connection at that meeting. And then we started a long-distance relationship. So when I graduated wanted to see if I could make a go of a career up in Toronto. And applied for an NCIC National Cancer Institute of Canada postdoctoral fellowship, and was awarded it. And the study was to do postsurgical stress management in men with prostate cancer. And so the original design of the study was really done by this individual by the name of Paul Ritvo, who was my mentor up at the University of Toronto at Toronto General Hospital. And what I brought to the table was the psychoneuroimmunology component.

1:35:20.1

He had designed the intervention, and it was in the vein of Jon Kabat-Zinn and the mindfulness stuff, group therapy kinds of stuff. It became very quickly apparent when I landed in Toronto

that Paul Ritvo didn't have the right kind of training to mentor me. He was just establishing himself. He was trained as a clinical psychologist. The Toronto General Hospital had a psych department. All the psychologists were psychologists, and they had to do psychotherapy with patients. So they were very psychotherapeutically oriented, not very research-oriented. Didn't understand research design, clinical trials. Some people did, and actually I struck up a phenomenal collaboration with this guy named Joel Katz who was a graduate student of Melzack's from McGill University. Melzack is the one who developed the gate theory of pain, that there's this dual -- super famous guy, published in *Science*. Anyway Joel was very interested, and I know this may all seem tangential, but it actually brings us literally to the study I'm doing today. Joel is a pain researcher, being one of Melzack's graduate students, and was interested in manipulating the anesthesia setting to see how that would influence pain outcomes. So he was doing this early research when I first got there of comparing spinal epidural to general anesthesia.

1:37:21.5

And he did this initial research actually showing that people who had the spinal had less pain postop. So he was playing around with this acute surgical setting, which of course is what I did my dissertation on, even though I wasn't working in the surgical setting. As a graduate student actually I worked on a study where we looked at PCA morphine at Walter Reed Hospital and compared people who had control of their morphine versus not. I wasn't the lead on that. But that was an influential study I was part of, in the medical setting, working with patients around surgery and all that. So anyway, it became quickly apparent that Paul was definitely out of his league. I was in the wrong place. They didn't have the money to support the immune measures. There was a guy there who was actually an early pioneer in the field of psychoneuroimmunology, an immunologist, Reg Gorczynski. But he really was focused in conventional immunology and was willing to support as needed. But we needed to bring in our own money, and there really wasn't a lot of support.

1:38:38.9

So Paul didn't have the intellectual expertise to help guide me further in my career. And it became quickly clear that I wasn't going to be able to do the study. And there was a bit of friction because Paul was trying to form his own -- there was another postdoc with me too who was extremely smart. And we started, as postdocs should do, and as I encourage my postdocs to do, through my introduction, or they can do it on their own, but they sometimes don't have doors opened without the introduction, start to foster collaborations with other doctors in the institution. So Tom Hack, who was the colleague of mine in the graduate program, we sought upon ourselves to go and start fostering a relationship with the head of breast medical oncology to start doing some research. Tom was particularly interested in communication issues and decision making.

1:39:49.8

And Paul was threatened and freaked out and wanted to control and go through me. And it's just like dude, that's not going to happen, because it's not personal, you don't have the same training

that we do. Tom did a fellowship at Harvard and I came from arguably the best health psych program in the country.

T. A. Rosolowski, PhD
1:40:15.2
Right, you're ready to zoom along and not help the ego of somebody who's not ready.

Lorenzo Cohen, PhD
1:40:19.2
So it became quickly apparent that it was a disaster for both of us. Tom left and I yelled down to Pittsburgh, "Andy, I'll bring my own money, will you take me?" And he's like, "I knew you would come back."

T. A. Rosolowski, PhD
1:40:34.8
We're just a couple minutes of 3:00.

Lorenzo Cohen, PhD
1:40:39.8
Let me just finish that thought. And we can pick up after this thought. So I convinced the National Cancer Institute of Canada to allow me to transfer the grant back. Andy had left DC and was now in Pittsburgh, so he was in this whole new position focusing in cancer. My grant that I'd gotten from NCIC was for postsurgical stress management, but because I was very conscious of not wanting to be viewed as taking anyone else's work, I reformulated it and designed the study to be presurgical stress management for men with prostate cancer. And again now we're back to the dissertation, which was looking at presurgical intervention. So I designed this two-session presurgical stress management intervention, and learned how to collaborate with surgeons, and brought this into the urology department in Pittsburgh, and ran a small randomized clinical trial, and was there for two years. And then we can pick up.

T. A. Rosolowski, PhD
1:41:57.5
Sounds great. Well, thanks for your time today.

Lorenzo Cohen, PhD
1:42:04.7
Yeah, it was fun, I look forward to getting this.

T. A. Rosolowski, PhD
1:42:10.5
I had fun too. I'm turning off the recorder at three o'clock.

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Lorenzo Cohen, PhD

Interview Session Two: July 6, 2016

Chapter 00B
Interview Identifier

T. A. Rosolowski, PhD
0:00:00.0
OK, we are recording. So just let me quick put the identifier on. I'm Tacey Ann Rosolowski. Today is July 6th, 2016. It is about 22 minutes after 2:00. And I'm in the office of Dr. Lorenzo Cohen for our second session together. Thank you for making time.

Interview Session: 02
Interview Date: July 6, 2016

Chapter 06
Early Research and the Art of Grantsmanship
A: The Researcher;

Codes
A: The Researcher;
C: Mentoring; D: On Mentoring;
D: Understanding Cancer, the History of Science, Cancer Research;
A: Professional Path;

T. A. Rosolowski, PhD
0:00:00.0+
And we were strategizing before the recorder went on, and we were at the point last time, we wrapped up with you talking about how you had followed Andrew Baum to University of Pittsburgh. And just wanted to make sure that you had an opportunity to talk about what you did there, particularly in those second two phases when you were the senior research fellow, and then the research assistant professor. And that would cover the period between ’95 and ’97.

Lorenzo Cohen, PhD
0:00:55.5
So when I realized I wasn’t able to really conduct the kind of work I wanted to do when I was up in Canada at the University of Toronto at Toronto General Hospital, Andy was my parachute back into safety so to speak, and I had designed a study with my postdoc mentor up in Canada to do a postsurgical kind of mind-body cognitive behavioral therapy group support for men with prostate cancer. When I got to Pittsburgh -- and had the sanction and the support from the National Cancer Institute of Canada to transfer the money, so I had a bit of my own money to do a research study, and essentially that research study, because they had approved me to do that, so that there was no issues with my previous mentor in Canada -- I felt I needed to change the study enough to make it really my own or something that was created with Andy. So I turned it into a totally different study, which was going to be a presurgical stress management for men with prostate cancer.
0:02:44.2
The focus was the same, the intervention was different, but dealing with the same issue of stress and recovery of men with prostate cancer, and had that important component of immune function embedded in it, which was one of my big interests, stress and the immune system. And it was in alignment with what I did my dissertation on, which was really a dissertation of a means to an end, but an acute laboratory intervention to see if different kinds of strategies could mitigate, buffer, the effects of acute stress in the lab. Predictability, information, rehearsal of what’s going to be happening. I already had all the background on presurgical interventions, so it was easy to convert that. And during my time in Pittsburgh continued to learn the art of grantsmanship from

Andy, who's just an incredible grant writer. We submitted a Komen grant together, of which we were successful, an information-based project. I'm not sure where it ever went, because Andy was the PI, but I kind of wrote it.

T. A. Rosolowski, PhD
0:04:23.3
Can you tell me what's involved in the art of grantsmanship? What does that mean?

Lorenzo Cohen, PhD
0:04:29.2
Well, ultimately you're selling something to somebody, who --they're a reluctant buyer. If you were to think about it in that way. So it's figuring out how to package this idea that you're trying to convince somebody to sell who's reluctant to part with any money. And it has to do with redundancy, but not overly redundant, keeping things simple, but not overly simplistic. Something that I always tell my trainees and junior faculty, everything has to be parallel. I'm surprised there isn't a program already written. But essentially the most important part is your aims. And once you have your aims, everything just falls into place. You have to have significance for every aim. You have to have the background for every aim, the references for every aim, the preliminary studies to support every aim, the methods to support every aim, the statistical analysis to support every aim.
0:05:52.1
That's where in some sense the redundancy comes in, because you're constantly going back to your aims. That's a really simplistic level. It's learning that process and trying to -- the other thing that people struggle with is keeping things in the right place. In your aims, you don't talk about how you're going to analyze your data. Your aims are your aims. In your aims, you don't talk about the background on the study. That's for the background section. And people sometimes get things mixed up. It just makes it cleaner and easier to read as the grant reader.

T. A. Rosolowski, PhD
0:06:38.6
Learning the form. But obviously it's something you have to finesse, you have to learn it and do it well. Thanks for answering that, because I don't think anybody's ever quite summarized it so precisely, so thanks. I derailed you. You said you continued to learn the art of grantsmanship from Andy.

Lorenzo Cohen, PhD
0:07:03.1
So in Toronto I had a little bit of experience working with some doctors and learning -- so in graduate school essentially I did animal research and then healthy human research, and had never really worked in a medical setting. In Toronto I worked a bit in the medical setting but then got really embedded in it in Pittsburgh. That was forever ago, but that's where I was thrown into the

lion's den because my main collaborators were surgeons. Surgeons have a unique sensibility, style. You probably have experienced this just in meeting each of the primary disciplines of surgery, radiation oncology, and medical oncology.

T. A. Rosolowski, PhD
0:08:05.0
How would you describe it though in your words?

Lorenzo Cohen, PhD
0:08:07.4
I don't know, I don't like to stereotype, but not even me stereotyping, surgeons tend to be more cutting to the chase. Within the hierarchy of medicine they, right or wrong, view themselves as the top. The egos are probably bigger, although they're big in all the MDs. But the surgeons in theory are the ones at the top. The person who was very interested in the study was one of the senior urologists in the center, which was great, because he took me under his wing. It was a psychosocial study, so there was no competition, but there was also no interest necessarily. People weren't going to go out of their way.
0:09:16.3
But because it was a cancer center but also a general urology clinic, the nurses gave me the name Dr. Death, I think it was or something along those lines, because they knew when they saw me sitting in the workroom that there was somebody in that clinic who had cancer. They didn't necessarily right off the bat know who, because I found out before they found out, because I'd go look at the pathology. And then right before the patient comes in, they look up and they see oh, it's Mr. Smith. Oh, I have to tell him he has cancer and talk about surgery and radiation and all those things. So sometimes the nurses didn't know until they went in the room, but they saw me, and they're like, "Oh, guess Mr. Smith has cancer."

T. A. Rosolowski, PhD
0:10:06.8
Oh, God. Who was the surgeon who took an interest in your work?

Lorenzo Cohen, PhD
0:10:11.5
I can't remember his name now.

T. A. Rosolowski, PhD
0:10:13.7
You may think of it. That's the kind of thing that could be added to the transcript later. And let me just ask you. So this was in the mid '90s. What was the general attitude towards behavioral sciences at that time?

Interview Session: 02
Interview Date: July 6, 2016

Lorenzo Cohen, PhD
0:10:32.7
Well, in psychooncology in particular it hadn't developed that much. There was starting to be these group interventions. Just not a lot of work in that area, in particular in the area of psychoneuroimmunology where you're trying to link psychological factors with immune and hormone functioning, stress hormones. It was a pretty wide open area. So I had enough money -- I can't remember if I got money from some other source as well, I think I did -- to do a small pilot of this presurgical stress management intervention, and during my time in Pittsburgh applied for an R01 with Andy's mentorship of grant writing. I don't even remember what the score was, but that was my first submission. Got favorably reviewed, but not funded. And essentially the first reviewer said in so many words, "Do this and this and then resubmit it and we'll fund you." And I did that and at that time applied to MD Anderson because there was a job opening in the Department of Behavior Science for a behavioral scientist.

Interview Session: 02
Interview Date: July 6, 2016

Chapter 07
Building Psycho-Oncology at MD Anderson; Setting Up Research
B: Building the Institution;

Story Codes
A: The Researcher;
C: Mentoring; D: On Mentoring;
D: Understanding Cancer, the History of Science, Cancer Research;
A: Professional Path;
A: Joining MD Anderson;
A: Overview;
A: Definitions, Explanations, Translations;
C: Leadership; D: On Leadership;
B: MD Anderson Culture
C: Research, Care, and Education;
B: Research;

Lorenzo Cohen, PhD
0:12:06.0
Interesting, when I interviewed here, it was probably for the second interview, and I was being co-interviewed by Scott Lippman and Terry Bevers, and I remember this very well. You probably never met Scott Lippman. He used to be head of Department of Cancer Prevention and then he became the head of Thoracic Medical Oncology. And now he's head of the San Diego Cancer Center, UCSD. He said, "Oh. Well, if you're going to be coming to work with Dr. Gritz [Ellen Gritz, PhD; oral history interview], I guess you're going to have to change and do tobacco research." I looked at him and said, "What do you mean? I'm a psychooncologist, I do psychoneuroimmunology in cancer patients." He was like, "I don't think so." I was like, "Well, I couldn't care less about tobacco, I know it's bad. As my tobacco colleague says, the majority of the population quits without help, so I'm not interested in tobacco research at all."

T. A. Rosolowski, PhD
0:13:14.1
So how did you find out about the job here?

Lorenzo Cohen, PhD
0:13:19.0
I don't know. I think it may have been like in the *APA Monitor* or something like that. Andy of course was insulted that I would leave, and I'd never heard of MD Anderson. I was still relatively new to the world of cancer, and then quickly found out about MD Anderson. It's like, wow. Last place I ever imagined living is in Houston, Texas. I think my wife even said when

we were leaving Toronto, which was both of our formative homes, 'now we're moving to the armpit of the continent,' and I think when we were in Pittsburgh she remembers seeing what the weather was in Houston and I don't think she thought it out loud, but God, wouldn't it be horrible to live there.

T. A. Rosolowski, PhD
0:14:14.6
One of those kill me now moments.

Lorenzo Cohen, PhD
0:14:15.6
If Pittsburgh was the armpit of the continent, you imagine where we are now.

T. A. Rosolowski, PhD
0:14:24.7
So why did you want to leave Pittsburgh?

Lorenzo Cohen, PhD
0:14:26.6
Andy was a very strong personality. And I had ambitions to be a leader and to form my own independent career. And because of the size of Andy and his empire and personality I would always be working for Andy. And that's not something I could do.

T. A. Rosolowski, PhD
0:14:58.9
So when you say you wanted to be a leader, what were you visualizing at that point in your career? What did that mean to you at that time?

Lorenzo Cohen, PhD
0:15:05.3
At that point just carving out my own area to call mine and to start to grow a program. When I showed up here there was no one really doing psychooncology in Behavioral Science. I can't remember if Karen Basen-Engquist had been hired. But as Scott said, they were all smokers. But Ellen [Gritz, PhD; oral history interview] hired me because she wanted me -- have you interviewed Ellen?

T. A. Rosolowski, PhD
0:15:31.4
Oh yeah.

Lorenzo Cohen, PhD
0:15:31.5
So they hired me one, because I hadn't gotten the grant funded but they knew what my score was on the resubmission of the R01, so it was guaranteed funding. And then the question was could I transfer it. And we got that approved, and of course they were thrilled because it'd be easier to do the study than even it would have been in Pittsburgh. So that's pretty rare, as a new assistant professor to walk in the door with an R01 in your hand. That doesn't really happen that often. So at that point Ellen hired me because she wanted to start expanding the program beyond tobacco and to actually have a focus in psychooncology. I think she had a postdoc, Cindy Carmack, who continues to be here, who was a postdoc with her doing some psychooncology work. Then they hired Karen Basen-Engquist either just before me or just after me, who was interested in exercise in cancer patients. And so the portfolio started to grow in terms of balancing out the focus on tobacco.

T. A. Rosolowski, PhD
0:16:55.4
So when you came for your second interview and you were cogitating over making the move, what were the opportunities that you saw here that convinced you?

Lorenzo Cohen, PhD
0:17:05.9
There was nothing in psychooncology. It didn't exist. So I just had this open playground with anyone. I could pick any cancer to work with and there was no conflict over lab. In Pittsburgh everywhere I turned not only was there Andy but then there was other people in Andy's group and his growing program. And it was of course much smaller. Even back then nothing was quite as big as MD Anderson. Now it's out of control of course.

T. A. Rosolowski, PhD
0:17:41.2
So you made the move in '97. So tell me about that.

Lorenzo Cohen, PhD
0:17:47.8
I was fortunate to be able to hit the ground running because I had an R01 essentially in hand, actually started it the next year. And because of that I was able to hire postdocs and start my research program really quickly. Because the R01 was a three-arm clinical trial, I knew I had to form other collaborations and to get other studies up and running on a shoestring budget because back then either I didn't negotiate well or they just didn't give a lot of startup. That didn't really matter back then because I walked in with an R01, so I had some money to be able to launch a program. And so what I was able to do successfully in the first few years, even though I had an ongoing grant, was to form collaborations with different people and get a number of short term

studies up and running and papers written by either adding stuff on to other people's clinical trials -- so for example I found out quickly in urology because that's where I was doing the prostate research, one of the GU medical oncologists was doing research in heat shock protein vaccines. So the purpose of the vaccine was to simulate the immune system, and he's already with company money collecting all the immune measures. And I said, "Well, why aren't we collecting some stress measures?" So I added some stress measures on to the protocol, started working and learning about drug companies and how they interact. I was totally new, being a psychologist of course. And so was able to get some studies up and running quickly in that way.

T. A. Rosolowski, PhD
0:20:02.6
Who was your collaborator for that study?

Lorenzo Cohen, PhD
0:20:08.5
Probably don't want to mention his name here. No, but it's fine. Robert Amato, who didn't stay here very long. He was one of these physicians, and it's nothing against him, he thought he knew best. When Lance Armstrong came to MD Anderson for his treatment told Lance -- and this is in Lance's book, so I'm not sharing things out of turn. He didn't call it MD Anderson, I think he called it Houston Cancer Hospital, so we didn't sue him or something. So he was told by Dr. Amato, who really thought he was doing best, that you need to take -- I can't remember what it was -- BEP or BOP or one of these acronym multichemo treatments. And Armstrong says to Amato, "Do any of the drugs in there impact lung function?" And Amato said, "Yeah, I'm afraid," whatever it was, "one of them is going to damage your lungs, and it's unlikely you'll be able to be a cyclist anymore." And Lance Armstrong said, "Well, then you have to take that out." He said, "I'm not going to take it out. That's the treatment that's going to cure you. And you're going to potentially," no problems with this, but, "this is the standard treatment and I'm not willing to modify it." So Lance Armstrong left. And do you know where he got his treatment?

T. A. Rosolowski, PhD
0:21:40.5
No, I don't.

Lorenzo Cohen, PhD
0:21:41.8
Right. But you can bet bottom dollar if he was cured by us, which he was cured --

T. A. Rosolowski, PhD
0:21:48.3
Oh, we would know all about it.

Lorenzo Cohen, PhD
0:21:48.7
You would know that it was MD Anderson that cured Lance Armstrong. He went to the University of Indiana, who was willing to work with him, and they figured out what would work, because he didn't want to live if he couldn't cycle, and that was before of course knowing that he was doping, but before he won seven Tours de France. So anyway Bob was an interesting character to work with because he's very headstrong and I learned how to work with temperamental doctors by those first few years of experience. And this was 1997, '98, when we had one IRB and one CRC and members of the IRB would say -- or of CRC, "You can't ask patients about depression and anxiety because you're going to cause them to be depressed and anxious if you have them think about it." It's like, what rock did you crawl out of? The tenets of psychotherapy is to look in and see what's going on. And we know that helps them. So no. Having them fill out a questionnaire is not going to cause depression. So there was just tons of education that had to happen in an institution that was really drug-focused. You could argue they're more drug-focused now than ever. But at least there is an openness and an awareness to the patient experience and the patient experience matters.
0:23:41.8
So back then it was really just backwards in terms of the thinking of the importance of patients' well-being and mental health. They just took it for granted. Well, of course the patients are depressed and anxious. They have cancer. And I remember I showed this data early on that these kidney cancer patients who were on Bob Amato's trials, the ones who were depressed at the start of treatment and stressed had lower immune function and they died sooner. And so really since then there's been lots of publications, some from us, showing that depression is a prognostic indicator of outcome, controlling for everything else, all the usual things. And medical oncologists essentially saying, "Well, of course they're depressed, they have cancer." It's like but you're not quite understanding. Not everyone is depressed. And it's the depressed ones who die sooner regardless of their stage of disease. So this is something that we need to try and modify as you try and modify the tumor and target the tumor. So just a huge amount of lack of information, misinformation, preconceived biases that a physician has because they're not taught anything about behavior and psychology in med school.

T. A. Rosolowski, PhD
0:25:22.4
Was it the same here as other places? Was MD Anderson slower in terms of that learning curve? I'm not asking for badmouthing. It's just where was the institution.

Lorenzo Cohen, PhD
0:25:35.6
I don't know because I'm here and was here, and it probably wasn't that different in other places.

I think MD Anderson is probably a bit more conservative. They're conservative at the same time as -- I remember being in IRB and Don Berry -- I don't know if you've interviewed him.

T. A. Rosolowski, PhD
0:26:01.5
No.

Lorenzo Cohen, PhD
0:26:03.4
He used to be the chair of Biostatistics here, super famous biostatistician, in particular in the area of breast cancer. And he didn't make a lot of friends in medical oncologists because he said, "You guys here at MD Anderson are like cowboys, you're doing things that are really right on the edge of is this appropriate and safe to do." But they're doing these things -- as J Freireich [oral history interview] probably shared, you're right at the edge of killing somebody or this could be the next discovery and the next step forward. They didn't know what was going to happen when you combined drugs. And they just did it.

T. A. Rosolowski, PhD
0:26:57.7
A lot of people have used phrases like 'cowboys' and 'Wild West.' That was the period of Developmental Therapeutics' heyday. You can see how it happened. But then obviously that environment created a lot of controversy and a lot of commentary.

Lorenzo Cohen, PhD
0:27:19.9
Yeah. So there wasn't as much openness to this. One experience, just sharing the challenging times. I had a prostate study that I had the R01 to support. Put it through the CRC, the IRB. It sailed through. So then I designed a second study. I don't know why I'm going to this level of detail. So I designed the second study, same study essentially, cookie-cutter, but let's do it with breast cancer too. So presurgical stress management. So I show up at the CRC meeting to present it. And you present the protocol 5 or 10 minutes. Here's the study design. And then it's open for questions. And one person asked a question about the blood. How are you going to get the blood? And I said, "Well, when I was in Pittsburgh we just went in the preop holding area and as they were setting up the IV." I don't know if you've interviewed Len Zwelling. If you have they probably made you delete all the recordings.

T. A. Rosolowski, PhD
0:28:35.9
No.

Lorenzo Cohen, PhD
0:28:36.9
So Len, I think he was the chair of the meeting, says, "You're not in Pittsburgh anymore." Just so demeaning. And then it was just a feeding frenzy. They just went nuts.

T. A. Rosolowski, PhD
0:29:02.2
What do you think was behind that? What was that telling you about the culture?

Lorenzo Cohen, PhD
0:29:07.3
One, that it is not supportive. The end goal wasn't to ultimately create a better study. I think they viewed it, particularly because I said, "Well, when I was in Pittsburgh," and they're like, "Little boy, you're not in Pittsburgh anymore, this is MD Anderson." Again this ego and bravado of we are better and we know better. And I viewed it because of the way it was done as it's almost like a hazing. And I didn't come from the medical world. Psychologist. We're nice to people. And that's the medical model of being very aggressive. And it happens in all disciplines. And we had one graduate faculty member who was like that. He would just grill people and ridicule them. But he did it using the Socratic method because he thought was the best way. Through fear and intimidation you're going to learn more.
0:30:48.9
Again it's certainly more of the medical model. I don't know. To have me save some face, they deferred the protocol and said, "Why don't you go and meet with," I think it was with Genie Kleinerman [oral history interview], who was Len's wife and then ultimately became head of Pediatrics here. Because she was doing some immune work. And so I essentially met with her, paid my dues. And she said, "I advise you. Next time you go into that room, have your collaborators with you."

T. A. Rosolowski, PhD
0:31:31.8
Oh, interesting.

Lorenzo Cohen, PhD
0:31:33.8
I didn't have any of my collaborators with me to jump in and defend. So I walked in the room with Gabe Hortobagyi [oral history interview], who was the chair of Breast Medical Oncology, Eva Singletary, who was the head of essentially breast surgery, a biostatistician, my immunologist. And I sat down. They nodded to people. All sat down around me. I presented the study. They said, "Any questions?" No questions. And I was approved like that. So that was a learning experience. Go in with your army.

Interview Session: 02
Interview Date: July 6, 2016

T. A. Rosolowski, PhD
0:32:21.7
It may very well have been, too, a PhD psychologist confronting this.

Lorenzo Cohen, PhD
0:32:28.8
For sure. Taking blood from surgery.

T. A. Rosolowski, PhD
0:32:36.8
Hazing sounds like -- well, certainly people have mentioned that kind of environment over and over. Always critically, I have to say.

Lorenzo Cohen, PhD
0:32:46.4
It made me better, it probably did, in terms of making sure that when I walk in that room to this day I don't view it as a kind, supportive environment. I'm there to be attacked, and I need to be ready. And having been on the other side, because I've been in the CRC as well as a member of the IRB, and as a mentor, my job is to find the problems. I read a paper not looking to write 'good' in the margin. I read a grant not looking for the good parts. I'm looking for the holes, for the problems, and to fix them ultimately.

Interview Session: 02
Interview Date: July 6, 2016

Chapter 08
Opening the Place of Wellness [The Evolution of Integrative Medicine, Part 1]
B: Building the Institution;

Codes
B: Building/Transforming the Institution;
B: Multi-disciplinary Approaches;
B: Growth and/or Change;
B: MD Anderson History;
B: MD Anderson Impact; C: MD Anderson Impact;
B: Survivors, Survivorship; C: Patients, Treatment, Survivors;
B: Prevention;
C: Patients; C: Patients, Treatment, Survivors;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;

Lorenzo Cohen, PhD
0:33:38.1
Anyway, back to the story. So I started in ’97. This had already been percolating. What ultimately became the Place of Wellness and then Integrative Medicine. So in September of 1998 the doors of Place of Wellness opened, which at that point -- and I’ll give you the details -- was the Integrative Medicine Center. But in that previous year it had essentially started to be talked about, which was the Anderson Network had their annual Anderson Network Conference is I think what they originally called it, which was the Survivorship Conference that they have every September out at the Omni. It’s been there for more than a decade now I guess. And supported through the Anderson Network. Judy Gerner was the head of the Anderson Network. And at their previous two conferences they had had some yoga, and I think some local people coming to do chair massages and music, singing, and some of this what we call today complementary medicine types of practices. And the patients went to Judy and said, “Why don’t we have this at MD Anderson for our patients?” So Steve Stuyck [oral history interview], who was the head of --

T. A. Rosolowski, PhD
0:35:31.1
Public Affairs.
Lorenzo Cohen, PhD
0:35:32.3
Public Affairs, which is where the Anderson Network was housed. Said we should do this. So I don’t know all the details of what was decided and how because this was still in my first year, ’97, ’98. So Walter Baile [oral history interview] was asked to be the in name only medical

director to be there just as a backup. But Judy was assigned to be the administrative director for the *Place of Wellness* and she spent half her time doing that. And then they hired one administrator, and that was it, so they had a budget of 1.5 employees. And this very small space, which is still the small space we have just outside the Clark Clinic on the north side of the street. John Mendelsohn [oral history interview] , who of course sanctioned and supported this, was very proud that the Place of Wellness had a separate entrance, that you had to leave the hospital to then reenter this space. It's not clear to me whether it's just because that space was available or whether it was really -- John likes to say it was thought out and planned that way but --

T. A. Rosolowski, PhD
0:37:01.6
What was the significance of that for him?

Lorenzo Cohen, PhD
0:37:04.9
Because you had to leave the hospital, where all this nasty stuff was being done to you, to enter this *Place of Wellness*. So it was very patient-driven. It was all volunteer-supported, either volunteers from the community or volunteers at MD Anderson. So for example there was a nurse in GU who was also credentialed, licensed, whatever that means, had experience with aromatherapy, so she did an aromatherapy class during her lunch hour. And so it was all very grassroots, and as you heard housed in Public Affairs. So that was in 1998 when the doors opened. We were the first you could call it integrative medicine center that was part of a freestanding cancer center. Nineteen ninety-nine, Memorial Sloan Kettering opened theirs. And then everyone started to open theirs. But we were really window dressing, not very medical, spalike, with zero budget, or 1.5 employees. So I was involved on some committees in terms of assessment and how do we collect data, and deciding on what programs should and shouldn't be approved, because of my interest in the psychooncology side, quality of life side, assessment side, and doing interventions to improve patients' quality of life.

T. A. Rosolowski, PhD
0:38:51.3
But you had no formal relationship. It was --

Lorenzo Cohen, PhD
0:38:56.8
Committees. Nobody had any formal relationship. It was Walter, Judy, and then Laura Baynham-Fletcher, who was the admin director. So then in 2000 Mary Ann Richardson, who was at the School of Public Health, but also had a cross appointment here, publishes a paper in the *Journal of Clinical Oncology*, 450 of our patients, showing that I think it was 79% of our patients were using some type of complementary and alternative medicine.

T. A. Rosolowski, PhD
0:39:34.6
Wow, 79%?

Lorenzo Cohen, PhD
0:39:38.4
Excluding prayer and psychotherapy. So herb supplements, special diets, acupuncture, the mind-body stuff. And most importantly, about half of them were not telling anyone about it. And no one was asking them about it either. So this was the first of many publications right around that time coming out talking about the high use of really to some degree alternative medicines in our society and the billions of dollars that people were spending out of pocket. Now it's one thing. Well, all of it can be potentially dangerous. But it can be particularly dangerous in cancer patients because of the drug-herb interactions. And so around that time, well, I think it was in the year 2000 or 1999, when we knew about the results, that David Callender -- back then there wasn't as big of a division of labor at the top. There was Margaret Kripke [oral history interview], David Callender, and John Mendelsohn, and then there was the financial people. But Margaret did the academic and David was the chief medical officer as well as the VP of the hospital. He was the second-in-command. David for whatever reason really thought this area was important, as did John.
0:41:29.2
They felt it was really important for MD Anderson to make a decision what they were going to do in this area of integrative oncology. It wasn't called integrative oncology then, complementary and alternative medicine. And so a committee was formed which had all the key stakeholders as well as representatives from multiple oncology disciplines. And I don't know if I have any of those materials anymore. It was a big committee, like 30, 40 people. A key person I know you must have interviewed. What's his name? His name has just slipped now. Very senior oncologist here who I think is now just in an advisory capacity. Not quite like Freireich but just under. Marty Raber [oral history interview].

T. A. Rosolowski, PhD
0:42:39.1
Oh, Raber, yeah.
Lorenzo Cohen, PhD
0:42:40.1
He was the facilitator and the chair. I assume you've interviewed him.

T. A. Rosolowski, PhD
0:42:51.5
Oh yeah.

Lorenzo Cohen, PhD
0:42:54.2
So it was great to see this in action. I was just a participant. I didn't know ultimately what was going to happen. So we essentially came up with multiple documents and a statement of Drs. Mendelsohn and Callender saying what we believed needed to happen was that we needed to have a program in this area of some kind. We didn't come up with what that looks like. But the decision from the committee was there needed to be a presence in this area because it was too important and there was safety issues but there was also opportunity issues to be able to improve patient quality of life, etc., etc.

T. A. Rosolowski, PhD
0:43:42.9
Did you include a financial opportunity in there as well? I mean the idea that it was market-driven in part.

Lorenzo Cohen, PhD
0:43:51.2
Well, inasmuch as there was the patient interest and the need. Place of Wellness already existed and was thriving and was starting to expand. And so that committee met in '99, 2000, and put together a report in 2000, 2001, essentially saying we needed to have something. So then David comes to me, Callender, and says, "Can you design what this program would look like?" And so he gave me access to all top resources to put together a budget. I'd never done anything like this before. A prospectus and the background and justification and all the stuff that Anderson makes you go through to get even $1 approved. Put together this five-year budget with essentially a center and department. After five years it was around a $5 million budget with faculty and research and clinical component. I'm sure I have all those original documents dating back to 2000. I save everything.

T. A. Rosolowski, PhD
0:45:16.5
Just for your information, anything that you think is appropriate to append to your interview, happy to do that.

Lorenzo Cohen, PhD
0:45:27.6
Right, you mentioned that.

Interview Session: 02
Interview Date: July 6, 2016

Chapter 09
A Vision for the Integrative Medicine Center; Building Support among Faculty [The Evolution of Integrative Medicine, Part 2]
B: Building the Institution;

Codes
B: Building/Transforming the Institution;
B: Multi-disciplinary Approaches;
B: Growth and/or Change;
B: MD Anderson History;
D: The History of Health Care, Patient Care;
D: On Research and Researchers;
B: MD Anderson Culture;

T. A. Rosolowski, PhD
0:45:31.6
Let me ask you. What was your vision? Here he asked you to do it, as opposed to anybody else. What did you want to accomplish?

Lorenzo Cohen, PhD
0:45:43.2
At this point they just asked me to come up with a proposal. Well, if I could envision what an integrative medicine program would look like. Here's the original report and recommendations from the committee.

T. A. Rosolowski, PhD
0:46:11.0
Excellent.

Lorenzo Cohen, PhD
0:46:12.4
Marty Raber was the facilitator. And there was two dozen other people on this committee. Wow. And this was dated February 8th, 2001, was when we sent the report in. And then two weeks later they were like, "OK, come up with the proposal." And then I presented it to them. And it was this big document that had the budget and everything. And John wrote a response which essentially was this is fabulous, it's in line with what I was wanting, the budget seems fine and appropriate. This was a letter from John Mendelsohn to David Callender, because it was essentially Callender's project, as directed by John to do. And it said in there, "Check with Ki Hong [oral history interview] what he thinks." Essentially what that was code for was see if Ki Hong wants this.

0:48:01.6
Ki Hong [Waun Ki Hong; oral history interview] looked at it, and of course I don't know what happened behind the scenes, and said, "I want this." Integrative medicine, then it was complementary and alternative medicine, belongs in the Division of Cancer Medicine, let's get it out of Public Affairs. Shouldn't be there. This needs to be in Medicine. So all this happened, as you heard from that. The report went in in February 2001. And then two months later they had my program overview and report. So what I envisioned, I envisioned having a research-driven clinical care center, turning the Place of Wellness more into a center that would be different from your standard center, but at the same time incorporating research into the model. Which we struggle with even to this day. That's somewhat of a different story.
0:49:11.8
So then Ki Hong said, "Yes, I want this in the division, we'll move Place of Wellness to the Division of Cancer Medicine, it'll be a center that will report just like the Leukemia Center and all the other centers." At that point Wendy Austin was the division administrator. So Laura was reporting to Wendy as the administrative director. And so I had one foot in Behavioral Science and then another role and responsibility in the Place of Wellness. Then in I guess it was --that year it was clear that Walter Baile's [oral history interview] real focus was in patient-physician communication and breaking bad news. He didn't really have an interest in complementary and alternative medicine. And we needed to have medical leadership, so we had a position approved to hire a physician medical director. And I can't remember when. It was probably in 2003 that we brought Moshe Frenkel in.

T. A. Rosolowski, PhD
0:50:22.3
I'm sorry. The name is?

Lorenzo Cohen, PhD
0:50:25.0
Moshe Frenkel. And he, I guess it was for five years, was the medical director and started to expand the program. There was no appropriate home academically for us, so we were put where we are now, which is in Palliative Care, but now it's actually called Palliative, Rehabilitation, and Integrative Medicine. Then it was just Palliative and Rehabilitation Medicine.

T. A. Rosolowski, PhD
0:50:59.0
Maybe this is derailing you, but I just want to say it now or later. I'm wondering about the challenges of being a highly interdisciplinary program. Not having a specific home. As I said, if it's not appropriate to tell that now --
Lorenzo Cohen, PhD
0:51:15.3
My vision and my end goal, and appropriately, was to become a department. And John said,

"You will become a department, but it's just going to take time." And Ki Hong was very supportive and said, "Let's get you a ZIP code," he liked to use those terms, "where you guys are safe and you can be fostered and mentored and start to grow until you can be birthed and independent." In some sense it was perfectly fine. But we weren't able to form our own identity, and always had to differentiate ourselves. We're not palliative care. We're working with patients with early stage disease. We're not doing drugs, we're doing acupuncture and meditation and yoga and those sorts of things. And so it wasn't the ideal fit.
0:52:32.1
So then for a period of time we moved to General Oncology, and General Oncology seemed like a better fit because they weren't wedded to a particular disease. So as you know, this institution is either disease-focused or it is treatment-focused. In some sense you could say that integrative medicine is treatment-focused. But it's not one treatment. It's not like surgery, and you can do surgery across the disease continuum.

T. A. Rosolowski, PhD
0:53:01.7
What would be your solution in terms of administrative structure, placing a department of integrative medicine?

Lorenzo Cohen, PhD
0:53:07.5
Well, it should just be a department with the Division of Cancer Medicine. We're a freestanding center, and in some sense a multidisciplinary center. But it's more like the Leukemia Center, Stem Cell Transplant Center, and the Palliative Care Center, which is all the docs in the center have one academic home. Unlike the Breast Center, that has doctors coming from different divisions, surgery, rad onc, and med onc. But I could see there was reluctance early on and pay my dues and build slowly and get to a formative size and then would be blessed with being a department. So at a certain point I had all the roles and responsibilities of a department, starting to grow junior faculty, and working with the medical director, and overseeing then what was called the Place of Wellness. Moshe was seeing patients in the Palliative Care Center when he did his consults but all the other integrative medicine programs were being done out of the Integrative Medicine Center. So it was even this separation between the doctor and the center. Just didn't make sense. Eduardo [Bruera], for well-intentioned reasons, who was then and now the chair of Palliative Care --

T. A. Rosolowski, PhD
0:54:44.1
This is Eduardo Bruera.

Lorenzo Cohen, PhD
0:54:47.0

Bruera. Didn't want to mix up the profitable arm of integrative medicine, which was the doctor and the nurse seeing patients and billing, with giving out free yoga and massages and this spalike stuff. So this was before we had really formed our medical model and being able to deliver it and for people to understand what it was and what it wasn't. So Moshe left. Rich Lee came on board, who is a medical oncologist, and really changed our medical model for the better. Nothing against Moshe, but when we actually shifted into General Oncology, Mike Fisch [oral history interview] was the chair of that department, and we became you could say more medicalized. So the physician consults were done in the center. We expanded into the Mays Clinic as well. So when Mays was built we were given a number of rooms on the second floor there by the library by what's it called, I can't remember what it's called, but anyway where a lot of our group classes could be housed, a cooking demonstration room, and really started to grow the program both clinically as well as research.

T. A. Rosolowski, PhD
0:56:31.3
Can you tell me a bit about that evolution of what you're calling the medical model? Because I really don't know what you're referring to with that.

Lorenzo Cohen, PhD
0:56:36.9
As I was mentioning, there was a separation between the Place of Wellness and what the physician was doing with his consults with the patients. And bringing it all together. So a patient could walk into the Place of Wellness and go to a yoga class or have acupuncture and never have to meet with the doctor. They could self-refer. In some cases they needed an actual referral, meaning the physician had to write the referral. They never had to meet with the doctor. For a while we continued that, but we've developed a model where we as being the medical experts -- not me, but the MDs -- decide what they think is medically necessary. So a patient may say, or a referring physician may say, "This patient has arm pain, and we're referring them for acupuncture." Maybe acupuncture is the right thing, but who knows better what the right thing is than the integrative oncologist? So we went through a lot of growing pains at that time and turned what really was a more spalike center being run by people who have no medical expertise -- and again, it was nothing against the people who were running it, there weren't nurses who were part of the Place of Wellness then. There weren't medical assistants. It was not a medical model. It was more like a spa.
0:58:23.6
And when we got a medical oncologist as the head, he's like, "We need to line up with the other centers if we want to be better understood of who we are, what we offer." There was also -- learned this the hard way -- not a lot of -- because integrative medicine and complementary and alternative medicine, nobody knew what it was to begin with, and then you had an MD who -- Moshe Frenkel was a family medicine doc by training. It's like family medicine doc, what does he know about cancer. Well, he knew a lot because he learned, as anyone can learn. I didn't

know anything about cancer until I cracked open books and learned about it. But an example was he recommended that a patient take B12. He got a nasty note from one of the breast medical oncologists saying, "Why are you prescribing B12 for my patient?" So Moshe shared some of the data and that this patient was actually low in B12 and data of how it's important to have your B12 at the right level. The doctor was just dismissive. When Richard Lee joined, card-carrying medical oncologist, also boarded in palliative care, also trained in traditional Chinese medicine and acupuncture, he was cut from the same cloth as the medical oncologists. They knew what his training was. He was Stanford, he was Northwestern, he had the pedigree. Ki Hong, as you probably know from having interviewed him, really cares about pedigree. He's old-school and it mattered.

1:00:12.1

So Rich was Stanford and oncologist and that's what the program really needed to take it to the next level. So we cleaned up shop in terms of becoming more medically focused. The medical director, and having nurses and physician assistants as part of the team working with the patients. Being more prescriptive in what we offered. Back in the early days we were really proud to offer more than 200 different program opportunities a month for the patients. A program opportunity could be a yoga class, if it's offered four times a week, that counts as four. And we had over 200, and we were really proud of that. In hindsight -- and it didn't take a lot of hindsight -- it's like, that's crazy. Why do we have so many things available to patients? They may sound good but it's confusing. What are the patients -- what are they supposed to prioritize? And there was no real guidance on here's the menu. Like we do when we go into a spa and you see 50 million massage therapies. How do I know which one to pick? This isn't a spa, this is medicine, and we're trying to treat and improve the lives of cancer patients.

1:01:37.6

So we trimmed out, made a lot of enemies, because we got rid of programs that were established, and we got rid of people who were dedicated and passionate about what we did. And it wasn't personal. We had a class on education about what Reiki is. And why should we do that? We should offer massage. We should offer things that we know are going to help the patients, things in the end -- the way I started thinking about it -- are things that I would tell my friend or relative to do to help improve their cancer outcomes, based on the science, based on the evidence. And have fewer options, because more is not necessarily better.

T. A. Rosolowski, PhD

1:02:27.2

How did you address the marketing issue? What you've been talking about is what you did internally to trim and solidify your identity. But then what were some strategies you used to represent the program outside and start to do that educating and generate some buy-in?

Lorenzo Cohen, PhD

1:02:46.4

That's an interesting evolution as well, and we're still in that process. We're in a very different

day today. I was giving 50, 60 talks a year, and a lot of them internally, and would go to the Department of Leukemia faculty meeting. This is what integrative medicine is. Most importantly this is what it isn't. This is the difference between alternative, complementary, integrative. At this point we'd formed the Society for Integrative Oncology and I was a founding member alongside Barrie Cassileth from Memorial Sloan Kettering and David Rosenthal, former president of the American Cancer Society, at Dana-Farber. So Anderson, Farber, and Sloan Kettering as the founders of this society. So we defined what integrative oncology was, started a society, had a journal.

T. A. Rosolowski, PhD
1:03:47.2
I'm sorry. What was the name of the society again?

Lorenzo Cohen, PhD
1:03:47.7
Society for Integrative Oncology. I think we're now having our fourteenth annual meeting coming up. So a huge part of it was going around and educating people. Early on Kay Garcia, who then was an acupuncturist with us, a staff acupuncturist, and now she's associate professor on faculty in our group. We were sitting around in a meeting talking about marketing and stuff, and she's a very interesting person, because she's a licensed trained Oriental medicine doctor, has a PhD in epidemiology, and she's an advanced practice nurse.

T. A. Rosolowski, PhD
1:04:38.9
Oh, interesting.

Lorenzo Cohen, PhD
1:04:42.2
And so wearing her advanced practice nurse hat, she said, "Going and telling nurses and doctors how you're going to make their patients' lives better may sound like it's the right message. But you have to tell them how you're going to make their lives better. Because they're overwhelmed. They're overworked. So how is integrative medicine going to help them personally?" And I didn't quite hear what she was saying when she said that. And so I continued in my talks about this is what integrative medicine is, this is what it isn't, this is the programs we offer, here's the evidence on how we're going to be able to help your patients.
1:05:26.3
And I also wasn't listening to a message which was consistently asked 100% of the time every time I spoke. Can I come to the Place of Wellness? Can I get acupuncture and yoga? My consistent response was no, it's for patients or for those touched by cancer. Just being an MD Anderson employee doesn't mean you're touched by cancer. But if you're personally having a cancer experience or in your family, and you feel you could benefit from us, then yes, you meet

our criteria. And I said, "Bill Baun [oral history interview], Georgia Thomas, they run faculty and staff health and wellness. Go talk to them if you need that stuff."

1:06:20.6

Anyway, I'll come back to this. So in terms of the timeline, Rich Lee came on. About a year later after doing the cleanup, we got rid of the name Place of Wellness. I'm sure a lot of people were upset. And we called it the Integrative Medicine Center. People were confused about the Wellness Center that Terry Bevers was running and which one is which, and what does one do. Other people confused us with internal medicine and integrative medicine. Again we're lining up more with the Breast Center, Leukemia Center, Integrative Medicine Center. So we went and we did a site visit to Allina Health in Minneapolis, Minnesota, to the Penny George Center for Integrative Medicine or something like that. They'd been given a huge amount of money. I have to come back to this other story. They'd been given a huge amount of money to start their program, like a $10 million startup, not even endowment, just here's money, spend it. And so they started doing an inpatient model. We started with a purely outpatient model. And they had the acupuncturists, massage therapists, mind-body person, nurses, etc. Not a doctor-led model. And they went around and they educated, like we were doing. Here we are, and use us, and here's our phone number, call us.

1:07:59.4

And they go back and nobody's calling them. And they're like, "Didn't you hear? We're here. We know your patients are in pain and suffering. And we're here to alleviate suffering. And it's free." Then they realized as Kay Garcia said what are you going to do to help them. So they realized that people didn't even know what they were talking about. People needed to experience it. So they developed what they called a transformative nurse training program, TNT, and at the heart of the TNT program was actually teaching them some integrative medicine skills for themselves, but also things that they could use with their patients. So some brief relaxation techniques, some meditation techniques. They did some acupressure techniques. Some aromatherapy. Then all of a sudden their phones were ringing off the hook.

1:09:00.5

So we started working actually with Kay Swint. Kay Swint came with us on the site visit, and she was very interested in improving the patient experience, and knew fundamentally that we had to become better caregivers to be able to improve the patient experience. And at the heart of being a better caregiver is doing better self-care. The metaphor of put your mask on first before you help others. So that all started to resonate. And a lot of things can change the standard of care in practice, but the one that's probably the most influential is if you believe it works. And the way you're going to believe it works is it worked on you. And although that is far from the evidence-based model, that's really what drives things.

1:09:55.0

So there's the RCT that you publish in the *New England Journal* or *JAMA*. Then there's actually your patients that you see improving in front of you because they've received acupuncture. And then there's of course acupuncture helping you. So I had a very interesting experience with each of these, which was presenting to leukemia grand rounds, a well-intentioned ornery Jay Freireich

puts up his hand halfway through my talk. And he peppers me with questions, very kindly and gentlemanly, as you know he is, about the acupuncture research. And at that point in 1995 the NIH published a consensus statement that acupuncture has A-level evidence for treating chemotherapy-induced nausea, 1995. We're not talking about 2005. And I'm giving this presentation probably like 2005 or '03 or '04. And since then there's been more research. And I present some of this data. And Jay asks these questions, and so I sort of answer them. And he said very appropriately, "I'd like to learn more. Would you be willing to send me some of these articles?" I said, "Yeah, I'm happy to."

1:11:18.8

And I continue with the lecture, and it wasn't adversarial at all. And so at the end of the lecture I go back to my office. I send him the *Journal of the American Medical Association* publication of the RCT blinded trials, NIH consensus statement, a few other papers. Two hours later, a response from Dr. Freireich saying, "Thank you very much for sharing these articles. I remain skeptical." And that was it. So does he care about RCTs? No. He doesn't care about RCTs. The head of the Pain Center was permissive and willing to allow us to do a study of acupuncture to treat intractable pain. These are the patients that they couldn't help. And so he sends us -- Larry Driver was our primary collaborator, and essentially says to Larry, "That's fine, I don't think you guys are going to be able to help our patients much, because our stuff didn't work, so a few needles isn't going to do anything."

1:12:35.6

So a few months later we get this e-mail from him, the head of the Pain Center, saying, "I don't know what you guys are doing, but my patients are getting better, and this is a fabulous study, and we're going to support this fully." Single arm study, no placebo control group, and I'm thinking what's going on here. Freireich doesn't believe the results of RCTs published in *Journal of the American Medical Association*. The head of the Pain Center doesn't need an RCT and believes that acupuncture single arm trial is meaningful, when it could be purely a placebo response. But that doesn't matter. Then we've got Steve Curley, who is this macho GI surgeon who's now over at Methodist, permissive of acupuncture coming in to treat ileus, which is chronic bowel obstruction -- chronic constipation after major GI surgery. Doesn't really believe acupuncture works, and he tells this story, which was one day he comes into the OR and he has to do a double shift because somebody was out. And he has horrible back pain. Like just excruciating. He knew he was going to have to be on his feet for 8 or 10 hours doing this double shift of surgery. And the anesthesiologist happened to be our main acupuncture collaborator, Joe Chiang, who's still here. And Joe says, "Well, obviously the surgeon can't take any medications, because he has to be on his game." Joe says, "Let me throw a few needles in. I know you don't believe in acupuncture, but what's it going to hurt? You are in excruciating pain." Pain totally went away.

1:14:30.7

Steve says, "I know acupuncture is real." So that's the least amount of evidence, and he's totally convinced that this is meaningful. So that's a long story to share what is it that convinces people to change their minds, it can happen at many different levels. And the evidence is necessary but

highly insufficient to change people's minds and to change ultimately the culture. I can show you a million studies that depression leads to worse outcomes, but it's not until you see this reel. Early on I had this important experience with Louis Pisters, who was my first -- probably not my first -- Curtis Pettaway was really my first medical collaborator, just this fabulous guy, urologist. But Louis, when he heard about the presurgical stress management study, and we're interested in optimism and stress and social support, he said to me, "I know when a patient walks into my office by themselves, pessimistic, sad, they're not going to do as well."

1:15:49.1

I said, "You know what you're saying, right? You're telling me that psychological factors are really going to -- like really?" He said, "Oh, all doctors know that if they're willing to listen and pay attention." I said, "Are you willing to say this publicly to your colleagues?" And he's like, "No." So I think Louis is still here. I haven't seen him in forever. So there's this culture. I think doctors live in these two different worlds, the world of what they know deep in their heart matters and is real, and what they know they need to do to survive as doctors. And they're two different things. And I think that medical culture is changing, and I've seen it change. Part of it is having more women actually join the medical profession has softened things up. And I think the early generation of women in medicine, they felt that they needed to be in a man's world, they needed to maintain this very masculine, aggressive, ego-driven, mean, competitive spirit. And I think as more women are in medicine now, and I think it's estimated that there's equal proportion, that things are softening up in that way. And people are more comfortable listening to their heart and combining that with of course evidence-based medicine.

Interview Session: 02
Interview Date: July 6, 2016

Chapter 10
Integrative Medicine at MD Anderson: Challenges and the Future
B: Building the Institution;

Codes
C: Mentoring; D: On Mentoring;
D: Understanding Cancer, the History of Science, Cancer Research;
A: Professional Path;
C: Leadership; D: On Leadership;
B: MD Anderson Culture
B: Building/Transforming the Institution;
B: MD Anderson History;
D: The History of Health Care, Patient Care;
D: On Research and Researchers;
B: MD Anderson Culture;
B: Critical Perspectives on MD Anderson;
C: Understanding the Institution;
C: The Institution and Finances;
D: Ethics;

Lorenzo Cohen, PhD
1:17:27.2
Let me just go back to the start of integrative medicine, because it's a very important piece that to this day still pisses me off, which is -- so what did I say the date was? It was 2001 when I submitted that document.

T. A. Rosolowski, PhD
1:17:48.5
Yeah, 2001 when you submitted that report. Or submitted the vision.

Lorenzo Cohen, PhD
1:17:55.5
Yeah, so we had the meeting in 2001. It was 2001 when I put the proposal together, went through all of the formal channels. And I get this resounding letter from the president, Dr. Mendelsohn, who I didn't really know very well at that point, that I support this, including the budget. Year one was $1 million and then it slowly went up as we grew, and it was a slow growth. So I thought I'm golden, this is going to be great. So it's August 30th, and David Callender calls me and says, "We're struggling with our budget. Are you willing to start it grassroots, small, no expectations? We'll give you $50,000 for the first year and another $50,000 in the next year." And it's like really. But John said. And then I learned that John said

yes to everybody and just left it for others to figure out how to make it happen because he liked seeding people's visions and encouraging vision. And then other people have to figure out how to pay for it. And a lot of people were told, "Sorry, we don't have the money," like me.
1:19:28.6
So what am I going to do? I'm going to say, "No, screw you, I'm not going to jeopardize my career to try and grow something from nothing, you're essentially saying, 'I'm going to give you nothing except a promise that it will grow'"? And of course I said yes. I was going to be a good soldier. I liked the idea of, of course, a leadership role. As you know that's why I left Pittsburgh. And I said, "You need to make it very clear that this is not little Lorenzo Cohen, assistant professor saying, 'I want to have my own center,' growing something that nobody even understands how to pronounce, and that this is top-down, this is sanctioned by Dr. Mendelsohn and Dr. Callender, and they want to have this, and Ki Hong wants to have this." So they agreed to those terms, because it's just language and it didn't mean anything as long as I agreed to do it for nothing.

T. A. Rosolowski, PhD
1:20:35.7
So you really got nothing for it even though it was an administrative role?

Lorenzo Cohen, PhD
1:20:37.6
Oh, yeah, I got nothing. And for a while I got like the supplement that a center medical director would get. But then they actually just folded that into my salary because there was a center medical director who got the supplement, and then they're like, "Well, we can't have two." And yes, of course you can. But they just wanted to have clean bookkeeping. But to their word, they over the years essentially approved every position we asked for as it was appropriate and we had the appropriate justifications and everything lined up. John, he was probably my most important mentor here. He had an open-door policy, although most people didn't necessarily have the courage necessarily to walk through that door. But I met with him regularly. Any time we asked him to come and open an event or speak at an event, speak to the public, he was the spokesperson for integrative medicine, an incredible champion for what we did, and why we continue to be successful today was John's vision.
1:22:05.4
Ki didn't quite understand what we were to the same degree that John did. But he knew how important integrative medicine was. So both of these super powerful leaders who for most of their time together here saw eye to eye, they played tennis together, having the two of them on either side of my shoulder, I felt super supported.

T. A. Rosolowski, PhD
1:22:36.8
When you said John Mendelsohn was a mentor, did you mean otherwise than being supportive of integrative medicine?

Lorenzo Cohen, PhD
1:22:44.0
Oh yeah, no, I would meet with him with career choices, decisions when I was exploring other opportunities, talked to John. When I was trying to decide -- because he essentially left it up to me -- when I was struggling with our home and our identity. John to some degree -- maybe I'm being overly kind in my support of John, because ultimately he's the one who could have made us a department before he resigned, and he didn't, and he said, "It's not quite right, the time is not quite right." And essentially he didn't want to have to do that, because Ki would have had to fight for it, and Ki ultimately had to be the one who would fight for it. John ultimately would have had to sanction it, and he wasn't quite ready to do that. So did he really prioritize me? Well, at the end of the day, the story is no. But still I don't totally hold it against him, because it probably wasn't quite right. But when I knew the fit wasn't right with Palliative and the question was do we change divisions, do we go under Ernie Hawk in Cancer Prevention and have this whole other place to be, or do I stay with Ki Hong, John was the one I went to for the advice.
1:24:22.3
When I was frustrated and looking at other institutions, John was the one I went to to seek advice on big career decisions. So I probably met with him three, four times a year where we would get into the issues, as well as a regular meeting with Ki Hong. But Ki Hong, I'm sure you've interviewed him, is a little harder to understand. Not a language issue. It's more of a delivery issue. You had to cogitate on things he said and then read between a lot of the lines. John was a lot more straightforward.

T. A. Rosolowski, PhD
1:25:06.4
Different communicative style.

Lorenzo Cohen, PhD
1:25:09.8
Yeah, I think we would be in a better place today if we'd become a department under John's reign. Now I'm not sure if we ever will. And I've realized that that's not my mission, that's not my goal, that's not the end place to be. Becoming a department is not the goal. It's being able to serve our patients and to do what we want to do. And that's what John said ultimately when I was trying to make a decision of staying or leaving. Are you able to fulfill what you want to do in your career here? And if your answer is yes, why would you go anywhere else? Don't get overly caught up in that concept of ego and needing -- the structure doesn't matter and the

reporting doesn't matter. And are you paid fairly and are you able to do what you need to do? And if you're not able to do what you need to do because of structure, then that's a problem.

T. A. Rosolowski, PhD
1:26:20.8
That's interesting. Doing a paradigm shift in terms of where do you place yourself.

Lorenzo Cohen, PhD
1:26:25.1
Yeah, because we live in hierarchies. Because I'm a section chief and not a department chair, do I get a voice at the table? No. Do I get -- well, none of that really ultimately matters. In some sense it's more of a headache. I let Eduardo go and sit around with the department chairs and have to deal with all the administrative nightmares.

T. A. Rosolowski, PhD
1:26:51.0
How long did it take you to really make that paradigm shift? I'm using those words, but to embrace that idea that being a department wasn't what really mattered.

Lorenzo Cohen, PhD
1:26:58.5
I'm still struggling with it. But it was probably at the time when I agreed to move out of General Oncology and back to Palliative Care where we've been now for two years. I essentially went in to [Ethan] Dmitrovsky [oral history interview] and said, "The situation in General Oncology wasn't working and we need to become our own department," and he essentially said in so many words, "Line up. There's all these other groups that believe they need to become a department first." It's like whatever. You're on notice. I'll give you two to three years. And he said, "OK. Please be patient." I said, "OK."
1:27:59.6
Actually after then now being in Palliative Care and thinking well, do I really care about that, it was maybe six months after being in Palliative Care, it's like am I able to achieve what -- and that's where John was really really influential. He actually helped me write my whole retention package. He read my letter and he was not president then, so he could do anything to help me. And it wasn't a conflict. But he essentially said, "What is it that you need? And tell them what you need. And you can get everything that you need that you would get being a department but just without that title and without the responsibility as well as the prestige that goes with it." The responsibility is a negative. The prestige, what is that? That's ego.
1:29:05.9
I'm still in this painfully hierarchical institution that's more hierarchical than ever. So you always have that hovering out there. I report to Eduardo. He ultimately makes the decisions. But he's a great chair and very supportive and he understands what integrative medicine is better

now than he certainly did before. And I think we're in a good place. Historically integrative medicine is still probably where palliative care was 10 years ago. But we are at a huge change in medicine. We haven't really talked about what the definitions are, and I don't think that's that important, of integrative oncology.

1:30:01.7

But at one point it was really just focused on complementary medicine, acupuncture, herbs, mind-body stuff, weird diets. But now it's really embraced all the concepts and components of what you could call conventional cancer prevention, lifestyle. And the reason is because the area of lifestyle, diet, exercise, and psychosocial support, are not the standard of care. Yes, there's a dietitian in every center here. But the dietitians are doing feeding tubes, and they're spouting the food pyramid, and there's not a continuity of care in terms of counseling. Breast cancer patients with a BMI of 30, if they're lucky they're told that they need to lose weight, and they're not given the supports to lose weight. And it's not paid for.

1:30:59.4

So John said to me early on, because he was a huge believer, because he read the evidence, and he saw what the data was, "Are we able to get dietitian, exercise coach, and behavioral counselors reimbursed?" And I said no. And he said, "Well, how am I going to support it then? We have to pay for this stuff somehow." And I understood that of course. And we're a medical model. Now we are changing dramatically because the evidence is just insanely overwhelming that unhealthy lifestyle not only leads to cancer but leads to worse prognosis after a cancer diagnosis. Literally every week in lay publications stemming from top peer-reviewed publications like *JAMA* and *JAMA Oncology* and *Lancet Oncology* it's showing that diet and exercise and weight are responsible for a minimum of 30% of cancers and in some cases 70%, 50% of colorectal, just those three areas, let alone some of these other factors.

1:32:18.8

So it's going to become part of the standard of care. And we as a country need to figure out how to make it reimbursable and we need to figure out how to prioritize prevention. And even though if somebody has cancer we don't typically think of using the word prevention, but it's the same prescription that you would give to a cancer patient to improve their outcomes as you do somebody without cancer to decrease the probability of developing cancer in the first place.

1:32:51.2

We as a country, not only are we going to save billions of dollars, but we're going to improve lives, decrease suffering, and as a side effect decrease heart disease, diabetes, Alzheimer's. There was just an article two days ago in the *New York Times* essentially saying with this great moon shot that we heard about on Monday -- and I'm sure DePinho was there and everyone's hugging and shaking hands. Nobody's talking about prevention. And that's where all the money is ultimately. Now can you make money from preventing a disease? No. Can you save money? Yeah. No one's interested in saving money. So we're not quite there. But everyone knows. I don't know if I'll be alive in the day that it becomes the standard of care. But what we're doing in integrative medicine today, which is focusing on the whole patient, assessing their lifestyle, modifying their lifestyle, so we have dietitians, we have exercise coaches, we have behavioral

psychologists, and then we have massage and acupuncture, it's not going to cure cancer or keep it at bay but it's going to help improve symptoms. But the lifestyle area will help to control their disease. And ultimately this will become the standard of care. It's unconscionable and probably ethically questionable to not provide the appropriate tools for obese cancer patients to modify their lifestyles.

T. A. Rosolowski, PhD
1:34:46.9
Want to leave it there for today?

Lorenzo Cohen, PhD
1:34:47.3
Yeah, I think that's my story.

T. A. Rosolowski, PhD
1:34:55.6
Oh, you don't want to tell me more? I want to ask you more. Just let me close this off for today. I'm turning off the recorder at about 3:58. Thank you.

Lorenzo Cohen, PhD
1:35:08.3
Yeah, pleasure.

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Interview Session Three: August 24, 2016

Chapter 00C
Interview Identifier

T. A. Rosolowski, PhD
0:00:12.9
OK, well then let's... Let me put the identifier on right now. So we are recording. It is one minute after 9:00, and I'm Tacey Ann Rosolowski, and today I am sitting in the office Dr. Lorenzo Cohen for our third interview session together. It is August 24th, 2016. So thanks again for making the time. And as the listener can tell, we were strategizing and talking a bit before the recorder went on. (laughter) So the big, outstanding area, as I -- as, you know, we mentioned -- was really the evolution of your research beyond those early days when you first came to MD Anderson. So if you want to tell me that story, that would be great.

Interview Session: 03
Interview Date: August 24, 2016

Chapter 11
Research Projects at MD Anderson, the First Focus on Integrative Methods
A: The Researcher;

Codes
A: The Researcher;
D: Understanding Cancer, the History of Science, Cancer Research;
A: Professional Path;
A: Overview;
A: Definitions, Explanations, Translations;
C: Research, Care, and Education;
B: Research;
C: Patients; C: Patients, Treatment, Survivors;
C: Cancer and Disease;

L. Cohen, PhD
0:00:59.5
Sure. So some of the first projects that I got engaged in what you would -- could call conventional psycho-oncology studies, examining ways of delivering brief cognitive behavioral therapy within conventional medical procedures, like we had discussed pre-surgical stress management for guys with prostate cancer, and we tried to embark on doing a similar study in breast cancer. And I can't remember the exact date, but Alejandro Chaoul, probably starting in 1998 or '9, like really early, when the Place of Wellness, which then became the Integrated Medicine Center, opened its doors, and Alejandro was at that point a graduate student at Rice University, and he was volunteering at MD Anderson, providing mind/body practices, and specifically... The volume's good?

T. A. Rosolowski, PhD
0:02:16.0
Yeah, we're good.

L. Cohen, PhD
0:02:16.6
Specifically Tibetan meditations and what was called Tibetan yoga to our cancer patients as -- again, as a volunteer. Place of Wellness back then, as we had discussed, was really relying on volunteers, because there was no budget, really, to support the programming, per se, until it expanded in 2002. And so he came -- Laura Baynham Fletcher, who at that point was the -- not the director of the program but actually the kind of, like, program administrator, said, "You know, you may want to meet with Lorenzo, because he's interested in doing research in this area." And so I met with Alejandro, and he didn't know anything about research. I'd never even

heard of Tibetan yoga. I'd obviously heard about yoga, (laughter) and heard a lot about Tibetan meditation, but not these ancient movement-based practices coming from the Tibetan Bön tradition, which was the religious tradition in Tibet prior to the arrival of Buddhism. Some, potentially inappropriately, call it sort of shamanistic practices that existed, and it's often said pejoratively because, you know, Buddhism came in and wiped out, physically and harshly, the religions that existed in Tibet at that time, so --

T. A. Rosolowski, PhD
0:03:58.8
I didn't realize that.

L. Cohen, PhD
0:03:59.3
-- we think of Buddhism as this peaceful, and it's, no, they came in and they slaughtered these monks who were --

T. A. Rosolowski, PhD
0:04:04.5
Wow.

L. Cohen, PhD
0:04:05.2
-- or they converted them, so to speak. You know, I'm simplifying, obviously, because --

T. A. Rosolowski, PhD
0:04:09.8
Converted at knifepoint, right. (laughter)

L. Cohen, PhD
0:04:11.2
Yeah, exactly. So anyway, the Bön tradition kind of still exists a little bit, and some practice it, and everyone's friends again, but this is pre. This is, like, pre-Buddhism. So Alejandro is this religious -- PhD religious scholar at Rice University, studying these ancient texts, and deeply engaged personally in the practice, and in teaching, and in teaching at MD Anderson. So we embarked on conducting a study of yoga for actually lymphoma patients, because at that time the -- I don't think she actually had a big title. Dr. Alma Rodriguez [oral history interview], who's a lymphoma physician, was going to Alejandro's center outside of, you know, her wearing her work hat, and so he said, "Well, have you ever heard of, you know, Alma Rodriguez? We could work with lymphoma patients." And I was like, "No. I'm not sure I want to work with lymphoma patients." Not that I have anything against lymphoma patients, but, you know, they're not -- it -- they're going to be harder to recruit, the numbers are smaller, etc., etc. So

anyway, we were successful in conducting a study of what we called Tibetan yoga, movement-based practices from this Tibetan Bön tradition that incorporate breathing, visualizations, and movements synchronized with unique breath work. Published it in 2004, I think it was, in the *Journal of Cancer*, and at that time, surprisingly to me, it was actually the first study of -- the first randomized trial of yoga in any cancer population. There's been other studies of yoga in cancer, but none were like these formal RCTs where, you know, patients were randomized, and half got it, half didn't, and...

T. A. Rosolowski, PhD
0:06:26.6
So how did you set up the study? When were the patients instructed in this tradition of yoga? What were your goals?

L. Cohen, PhD
0:06:36.1
So we kind of -- you know, we'd never done this before. I'd never done yoga research before. So we kind of took all comers with lymphoma who were either undergoing active treatment or within the first 12 months having completed treatments, and they're still kind of experiencing some of the residual side effects. And really, you know, in this first study, interested in aspects of quality of life, so it was all subjective, as we'd call it, paper-and-pencil-validated measures of depression and anxiety and sleep and physical functioning and spirituality and that kind of thing. And this was kind of new for, obviously, for the lymphoma group, but, you know, everyone was very supportive and on board. There was no, let's say, challenges in running the study, except for getting patients, because they were sick, they didn't want to do it, they tended to be older. Not that any of that's... I mean, the main issue was, you know, compliance once they were in the study, and dropping out, and... But we ended up getting I think it was specifically 39 patients, and it seems like such a small number, so... It was, and it was a small pilot study. And found the most -- the strongest finding was that we saw benefits for sleep quality. So the patients reported better -- well, the term is actually that they had reduced sleep disturbances, so they had better overall sleep quality, they slept longer, they fell asleep faster, which is called sleep latency. So from the time you go to bed to the time you actually fall asleep -- which, of course, is an important outcome -- as well as reporting that they were taking fewer sleep medications, which, of course, all told, is a great outcome. It received a lot of publicity, partly because it was the first study of its kind, and had this very strong finding, manipulating or modifying an outcome that is actually quite problematic for cancer patients, this issue of sleep disturbances, that can persist actually for quite a long time after diagnosis. I was just looking to get the exact...

T. A. Rosolowski, PhD
0:09:41.5
Is there a list of big issues, quality of life issues for cancer patients? I mean, I sort of imagine

there would be this amazing, long list of them, but are there some key problems that are of real concern?

L. Cohen, PhD
0:09:59.3
Yeah, I mean... Well, and it depends on when in the trajectory, but all these issues... Well, nausea and vomiting never becomes chronic. It's always an acute issue, meaning that a year after treatment you're not walking around with this constant nausea. But during, you know, treatment and recovery, it is one of the big ones, nausea and vomiting. Fatigue is a big issue during treatment, and in a subset of patients can become chronic, meaning forever. Pain, similarly, of course, during treatment, surgery, recovery, etc., radiation, can become -- is an acute problem that for many becomes chronic. We've just started a study for acupuncture to treat chronic post-mastectomy pain, so these are women who a year later they're still experiencing pain, and nothing seems to really help them.

T. A. Rosolowski, PhD
0:11:04.7
Is this what -- I've heard the term "engraved pain," in that, you know, the neural pathways become so accustomed to the pain that it just stays all the time. Is that...?

L. Cohen, PhD
0:11:14.9
Yeah, I mean, so it could be that, or it could be this concept of a phantom, you know, particularly when you're dealing with a mastectomy. And so there's actual neural reorganization that helps to explain why people, like, who lose a limb say they are experiencing pain when there is no limb there. Could be something similar with breasts, but also just this... And the reason people are experiencing the phantom is because of this established relationship that happened at the time of the trauma, the dual path gateway theory of pain which was coined and discovered by Ron Melzak from McGill University, who is the mentor of a former colleague of mine that I did pain research with when I was up in Toronto, trying to break that relationship. So pain, that's another one mentioned, fatigue. A kind of pain, but it's not really pain, per se, is peripheral neuropathy. This is something that is really problematic in a very large percentage of patients who get chemotherapy, and it's actual damage of the nerves in the fingers and in the feet, hands and feet, which, again, can be permanent, and can be so debilitating that people have a hard time dressing themselves and walking, even. And we have three areas of research trying to help with that chronic condition: acupuncture, massage, and the work of Sarah Prinsloo, which is neural feedback, so actually changing the way the brain is functioning and interpreting these signals from the periphery. Sleep disturbances in particular, and after this initial research with Alejandro we expanded it -- we actually did a small study in breasts, which was too small to really interpret too much, but good enough to get a large R01, that we've just resubmitted the paper to JCO, showing benefits for sleep, but not quite as strong as we wanted. What's the most compelling

thing about this larger study, which is in over 200 breast cancer patients, three-armed clinical trial -- so we had an active control group that learned some stretching exercises -- is that the patients who were practicing their yoga two times a week or more had substantially better outcomes than the control group, as well as the stretching group, and as well as their counterparts in the yoga group, who weren't practicing two times a week or more. So, you know, that's sort of stating the obvious, but, you know, it's a challenge of these sort of self-delivered interventions, because it's not as easy as taking a pill. So, you know, everyone knows if you don't take your antibiotics the bacterial infection will not go away, so the same kind of thing: if you have a sleep disturbance, and we know yoga's going to help you, if you don't do the yoga you will still have your sleep disturbance. So it, you know, again, is a message that everyone's grandmother could tell you, but it's kind of good to get it out there in the medical community, and we're hopeful that it will get accepted in *JCO* and continue to push this message out.

Interview Session: 03
Interview Date: August 24, 2016

Chapter 12
Consolidating the Focus on Mind/Body Research
A: The Researcher;

Codes
A: The Researcher;
D: Understanding Cancer, the History of Science, Cancer Research;
A: Professional Path;
A: Overview;
A: Definitions, Explanations, Translations;
C: Research, Care, and Education;
B: Research;
C: Patients; C: Patients, Treatment, Survivors;
C: Cancer and Disease;
C: Professional Practice;
C: The Professional at Work;
C: Collaborations;

L. Cohen, PhD
[0:15:22.3]
So around that same time, but slightly afterward, a very small and intensely, energetically powerful Indian physician comes into my office one day, and in so many words says -- because she'd found out that we were -- you know, that I -- who I was, and that I'd started to do some yoga research -- "You need to do research with us." I was like, "Who are you?" You know, she was in a sari, very traditional, and by training a gynecological -- a gynecologist sort of in general, but not necessarily focused in cancer. And she came from this organization in -- outside of Bangalore, India called the Vivekananda Yoga Research Foundation. That's what we called it, but it has this sort of longer name to it, and the acronym is VYASA. I can't remember the exact date that I met her, but it would be great to be able to backtrack at some point. But I think it was before our yoga publication. So VYASA -- I don't know the history of VYASA in Houston, which it would probably be fun to find out... And so I listened to her, and then after she left looked her up, and the organization up, and lo and behold, it turns out they probably are the most well-published yoga research group in the world, with a specific focus in medicine. So their first study they published in 1985 in the *British Medical Journal* showing that yoga practices, and in particular the Pranayama, the yoga breathing, helped treat patients with chronic asthma. Nineteen eighty-five. That meant that they had to have started the research in 1983 or even 1982, because we all know how long research takes to actually get into a publication from the time you create the first patient, particularly a prestigious journal like the *British Medical Journal*. So --

T. A. Rosolowski, PhD
0:17:47.0
What was her name?

L. Cohen, PhD
0:17:48.9
Dr. Nagarathna. Raghuram Nagarathna. So, you know, after I learned a bit more, and that they, you know, had started this -- you know, that they were founding, or had already founded, a Houston chapter, let's call it -- and, again, I'm not sure what brought VYASA to Houston, but, you know, being the largest medical center in the country, and, you know -- that's a good place to go. VYASA, you know, not only was doing research, but they were training yoga teachers specifically to get engaged in -- within medical centers and hospitals. So their mandate and focus was really in alignment with us, and what we were doing here at MD Anderson, at least as we had started it. So this -- yeah, this dates back to prior, to the publication of the Tibetan yoga study, because I have a document... The first document I have in my records here for the development of the first pilot study with the VYASA group is 2002.

T. A. Rosolowski, PhD
0:19:28.8
What was that pilot study?

L. Cohen, PhD
0:19:32.4
So we did a small pilot of 60 patients, incorporating yoga into the radiation treatment plan for women with breast cancer, and they would have yoga two times a week for six weeks of radiation. Then we followed them at the end, I think it was one month and then three months later.

T. A. Rosolowski, PhD
0:19:52.5
And this was another sleep study? Or a general quality of life?

L. Cohen, PhD
0:19:56.2
Well, general quality of life. We weren't sure exactly, you know, what outcome would end up being the strongest. It turned out that sleep wasn't one of the big ones, and it turned out to be their physical functioning, and then aspects of -- more aspects of spirituality, this measure called benefit finding, and, again, the physical functioning aspects, so quality of life. That led to a... That led to a R21, and for those who don't know what an R21 is, it's small research grants from the NIH, about a quarter of a million dollars, to do smaller pilot studies, and so in the R21 we added that stretching arm, so that you had patients who were doing yoga two times a week -- I

think we upped the dose -- three times a week for the six weeks, general stretching exercises, and then we have the control group that got the standard of care, which is nothing. And so -- and we followed them for six months, and replicated those findings, and we also had, importantly, a measure of cortisol, and cortisol's a stress hormone that's high in the morning, so our cortisol's at its highest right now, and it's going to slowly drop throughout the course of the day. There was publications by David Spiegel and JNCI back in early -- the early 2000s, showing that women with breast cancer who had a dysregulation of their cortisol slope, meaning slopes that were less steep or were dysregulated in some fashion, didn't live as long. And so what we found was that by the end of radiation there was actually a blunting of the cortisol slope for everybody, but much less so for the women who were in the yoga group, compared to both the other groups, at the end of radiation as well as one month later. So here, the Tibetan yoga protocol, the first document I have in my records is -- dates back to 2000. So, you know, we started that one first, and then we moved to the -- working with the VYASA group, as well. Oh, here's the manuscript. Yeah, 2004. And I was correct, 39 patients. So that R21 was very successful, tons of publicity, because, again, it was actually the first yoga study to include an active control group. And why that's so important is that you need to -- we couldn't say any -- that it had anything to do with yoga, because maybe it was just stretching. Maybe it was just movement. Maybe it was just attention. Maybe it was just the social support that they're getting. And we know all those what you could call active factors, and then the more inactive, or nonspecific factors, like social support and attention, etc.

T. A. Rosolowski, PhD
0:23:33.1
When you say it got a lot of publicity, what do you mean?

L. Cohen, PhD
0:23:36.8
Oh, in newspapers, magazines, you know, that kind of thing.

T. A. Rosolowski, PhD
0:23:40.5
OK, so -- yeah.

L. Cohen, PhD
0:23:41.5
News reports, you know, the local... You know, it didn't -- it got a lot of international attention, but it's not like I went on *Good Morning, America* kind of attention.

T. A. Rosolowski, PhD
0:23:50.8
No, I just -- I didn't know kind of what you were referring to, that's all, and --

L. Cohen, PhD
0:23:52.8
Yeah, yeah. So the local Fox News did a story, the *Houston Chronical*. It was, you know...

T. A. Rosolowski, PhD
0:23:58.7
Why do you think there was so much attention?

L. Cohen, PhD
0:24:01.8
Well, one, it's yoga. I mean, you can find more yoga centers than Starbucks in Manhattan now, so, you know, that's one aspect of it. And the other -- you know, the lay press is really interested in this stuff. You know, they're interested in the lifestyle stuff, and things that can help cancer patients. We know that individuals have these chronic illnesses, and, you know, anything that can be shown to help patients tends to get attention in this area.

T. A. Rosolowski, PhD
0:24:37.1
What about from the medical community? How was, you know, these sorts of studies that were firsts and were very positive -- what --

L. Cohen, PhD
0:24:45.0
So let me -- so I don't know if I've described this. And I'm sure he'd be fine with me going on record describing this. I can't remember if we'd talked about this. I remember we talked about the story about Pisters, Louis Pisters, and patients, and optimism and pessimism and all that. So when we started the -- this yoga study, we had a very small window of opportunity in which we could recruit the patients and get baseline before they started radiation. So, you know, that -- typically what happens is a patient will finish their chemotherapy, and then they have surgery, or they have had their surgery, then they had their chemotherapy, and then they're about to start radiation. So most of these patients aren't around -- you know, as you might know, two thirds of our patients aren't from the Houston area, so they come in to meet with their radiation oncologist. Maybe, you know, the next week or shortly thereafter they do their radiation simulation so that they can get, you know, all the statistics and everything set up to start their radiation, and then the next week they'll start their radiation. We were collecting sleep measures, so they had to wear these watches, actigraphy watches, for a week before the start of radiation. So we needed at least a week. So ideally we would catch them at the physician consultation before simulation to give us the biggest window of opportunity. So at that time -- gosh, what's his name? The -- he was head of -- so George Perkins was our primary collaborator, who is now head of -- the physician head of our PRS, so breast radiation oncologist.

Tom Buchholz, extremely supportive, who's now our physician-in-chief, of bringing this kind of research in. At that point he wasn't department chair; he was a relatively new professor, as I was. We -- I think we both came in 1997. And Eric Strom.
[0:27:08.7]
So Eric Strom was essentially the center medical director for the breast radiation group, and he was very open and willing to have us there, but he said, "You cannot approach patients during the consultation, because I don't want it disrupting our flow. Do anything you want from simulation onward." So don't approach a patient before simulation. So we're like, are you kidding? You know, we're not going to be able to... Because patients could get their -- start radiation the next day, or 48 hours later, and the patients are anxious to kind of get things going. So we're like, OK, you know, you're the boss, and we'll see what we can do. We were really struggling in trying to get patients on the trial in a timely manner, and some patients started radiation, so we had incomplete baseline. And a few months into the study, the research assistant comes to me and says, "You won't believe what happened in clinic today. I was with a patient, and I didn't know that Dr. Strom hadn't seen the patient yet, and she's in the clinic room speaking to the patient." And Dr. Strom opens the door and comes in, you know, kind of -- I don't know if you've met Dr. Strom. He's tall. He's muscular, very athletic, and very well put together kind of guy. And, you know, she panics, and immediately says, you know, "I'll leave, I'll leave, I'll leave you guys." And he's like, "Oh, are you here about the yoga study?" And she's like, "Yes, I'm in..." And he, "No, take your time, take your time. I'll just be outside." So it turns out that after starting and running the study for a while, patients were going to Dr. Strom and thanking him for allowing them to participate in this study, and having this study as part of the center. And from then on, we could approach the patients whenever we wanted, you know, because he started to see firsthand from the patients how wonderful this program was for them, and how useful they were finding it in their lives. So this was the first study, and then we ran the second study and now we're in the midst of the last year of completing a much larger study where we're trying to get over 400 patients randomized to a similar model of yoga versus stretching, and we've incorporated some relaxation exercises versus usual care.

T. A. Rosolowski, PhD
0:29:55.9
So what were the benefits that the patients were seeing that made them so enthusiastic about it?

L. Cohen, PhD
0:30:01.8
Well, actually, the patients -- and we report this in the first paper -- again, in the first paper it was mainly the area of physical functioning and benefit finding, which we replicated in the second study, but when we asked the patients to, you know, to write -- to tell us, you know, what benefits do you see, they talked about actually sleeping better, having more range of motion, and we measured range of motion, but it wasn't a sensitive enough measure to actually detect that there was a difference. But they felt and reported that they were sleeping better, that they were

able to move better, that their mood was better, that they were more relaxed, you know, all these benefits that they were detecting, many of which we weren't able to see between the two groups, because, again, a lot of our subjective measures are very clinically laden. All these women had very good mental health, so they weren't in the depression range. They actually were better for a generic measure of mental health than women in the general population.

T. A. Rosolowski, PhD
0:31:21.4
Wow! (laughter)

L. Cohen, PhD
0:31:21.8
So you can't improve somebody's mental health beyond perfect kind of thing. But they reported being more relaxed after they did it and, you know, all these types of things. So those were probably the kind of anecdotes that they were feeding to Dr. Strom for him to be able to, you know, open the door. And the radiation oncologists, you know, loved this study, and it continues today. And, as I mentioned, the first draft of the first protocol we wrote in 2002, and we're now almost in 2017, and we've continuously recruited patients on this kind of research in the breast radiation group. So that's the -- that's kind of the yoga study in that line, and, again, it continues today with -- as I kind of mentioned, in the area of trying to treat peripheral neuropathy with a number of different integrated medicine interventions. We've started to get, for some of the studies, a little more symptom-specific, so we conducted a small study of Tibetan sound meditation to treat chemo brain, which is one of the other symptoms I forgot to mention to you, which is cognitive dysfunction that's induced by the chemotherapy, which is for many people permanent, and extremely debilitating, and for some they cannot continue with the original occupations that they had. Chemotherapy is a neurotoxic agent, as well as generally toxic, and it's been documented through brain scans and everything that for many people these changes are permanent. And we found that through this form of meditation that you could actually improve cognitive functioning. So we did a small pilot study, published that, and then I have subsequently done a larger study with the neuroimaging and with collaborations in Brazil, part of our sister institution network, and we're actually meeting with them in the next couple weeks to see where things are, and so that kind of continues.

T. A. Rosolowski, PhD
0:33:49.1
Have I told you about that book *Meditation Is Medicine*? I think I told you about that a couple years ago. But anyway, I remember it was about sound, so it would be interesting, you know, extra supplement to --
L. Cohen, PhD
0:34:04.6
Definitely.

T. A. Rosolowski, PhD
0:34:04.9
-- let people know about, yeah. So how exactly did you use sound in that study to treat this --

L. Cohen, PhD
0:34:12.1
Well, this comes from the Tibetan Bön tradition, and Alejandro helped to design that, and did... It's a combination of sounds, so these ancient syllables from -- both used in Sanskrit and the Yogic tradition, as well as Tibetan tradition: the sound of "ah," the sound of "om," and the sound, in this case, of "hung." And in combination with emitting the sounds, you have a particular color, a particular spot in the body, and a particular cognitive task that you're doing. So it's relatively complex, which is theoretically good, to kind of engage this complex network in the brain, versus this kind of just seated meditation of, you know, empty your mind, or transcendental meditation, which is a focused meditation, focusing to say this mantra over and over and over and over. So anyway, we tried to continue the work, struggled to get it funded by the NIH, but hopefully this follow-up study will be compelling.

T. A. Rosolowski, PhD
0:35:32.3
Has there -- are there studies underway to examine why this works? You know, like, what's the explanation for...?

L. Cohen, PhD
0:35:43.5
Yeah. So not... Well...

T. A. Rosolowski, PhD
0:35:47.5
I mean, I realize so much of this falls outside the domain --

L. Cohen, PhD
0:35:50.0
It's pretty hard. I mean, why... You could ask why from a physical perspective. So is -- my mood is improving because my amygdala is shrinking, and my prefrontal cortex and my hippocampus are growing. There's decreased reactivity, let's say, between the amygdala and the prefrontal cortex. That's not explaining why. That's explaining -- that's sort of the physiological mediator of why somebody who does meditation is less reactive, quote-unquote happier, but it doesn't explain how meditation makes you happier.

T. A. Rosolowski, PhD
0:36:36.1
Right, the difference between brain and mind, or brain and consciousness, or brain and spirit. Yeah.

L. Cohen, PhD
0:36:40.7
Yeah. So, I mean, we've measured those kinds of things, and haven't delved deeply into it yet, and will now, so things like social support, social connection, measures of mindfulness. I'm just more mindful of my environment, just to -- you know, 30 questions that tap into how mindful are you. Are you mindful about yourself? About others? About your environment? So, you know, it's probably something along those lines in terms of the first person subjective narrative of what's changing in that human being. Again, how that happens, it's -- you know, the neuroscientists could do the brain scans and say, "Oh, well, because, you know, this is less active, and that is more active, that explains, you know, biologically why..."

T. A. Rosolowski, PhD
0:37:44.8
I guess the -- part of the reason I ask is -- you know, one part is curiosity, but I guess the other part is if there's still a need to convince people who are more firmly rooted in the, you know, "I want biological evidence," they might be open to information of that sort as a convincer.

L. Cohen, PhD
0:38:02.8
Oh yeah, so that... Yeah, that data's there now, and it's pretty overwhelming, you know, what's changing in the brain, and Anil Sood's research, and our research, showing that, you know, chronic stress causes progression of disease, and Anil Sood, who's a gynecological medical oncologist here, and head of the ovarian and breast cancer Moon Shot, co-head, has definitely documented the mechanisms whereby stress leads to the progression of disease, and we've shown in a large kidney cancer population all the stage fours, so very heterogeneous, as well as more homogeneous bladder population, that depression at the time of diagnosis is a predictor of survival. And we looked at some of the mechanisms, the biological mechanisms, both telomeres as well as gene expression profiles that explained why the depressed die sooner. So there's no question from the meditation perspective also that meditation changes our brain, both its function as well as literally neuroanatomy. So you go to the gym, and you do bench presses, and the pectoral muscles get larger. You do cardiovascular, you do aerobic exercise, your heart gets stronger, healthier. Exact same, you know, analogy fits for meditation: your brain gets healthier, in the colloquial term, and we know the exact parts of the brain that are being enervated. Different kind of meditations will enervate different brain areas, but in general we're seeing -- if you're looking at, from the EEG perspective, decrease in beta activity, which is sort of that high alert associated with anxiety, and more alpha activity, which, you know, we associate more with

relaxation and calm and bliss, and then in high states of meditation you get into gamma and theta and things like that. So, you know, we've continued that line of research, you know, looking at I guess you could call them these mind/body practices, and currently... We actually have a study -- I don't know where it is now, but I think it was resubmitted -- that a graduate student of mine did where we incorporated brief meditation into stereotactic breast biopsies, so during the biopsy the women were engaging in a brief meditation, and we measured EEG and, you know, all that kind of stuff. And actually expanding that now to do some work with hypnosis during invasive medical procedures, so we've been doing it clinically for PICC and PORT placement and removal, where patients will have a local, and then we'll put them in a deep, hypnotic state to help them relax during the procedure, and it's been quite profound.
[0:41:28.3]
But the most exciting avenue in this area, before shifting to a different area, has been collaboration with breast surgeons, who have allowed us into the surgical suite, to offer to the patients the opportunity to not have to have general anesthesia for major breast surgery, and instead we give them local and hypnosis. And we've now run almost a dozen patients through this program, and it's just been incredible. Not only did the patients go through the procedures smoother, we're able to avoid giving general anesthesia, which, unbeknownst to many people, except the anesthesiologist, is really bad for you. And, in fact, there's data showing that women who have their breast surgery with general anesthesia, compared to ones who use an alternate procedure, such as the paravertebral block, they actually have better clinical outcomes, lower probability of recurrence of disease. So general anesthesia we've known for decades, if not half a century, is immunosuppressive, and it results in cognitive dysfunctioning that is even there six months later, and there's FMRI data showing these cognitive dysfunctions. And the list of, you know, side effects goes on and on from general anesthesia. I sat with the division head of Anesthesia here, as well as the chair of the Department of Anesthesia, and they say 'if there is anything that allows us to not have to give anesthesia, we are on board.' I mean, they do not want to give anesthesia, because they know how harmful it is to the body. And, in fact, the mantra that they also say, which is always shocking to me, is, "And we don't even know why it works." It's like, oh. And you call that evidence-based medicine? (laughter) You know, they just don't understand these concepts of consciousness and unconsciousness and, you know, why does this drug make this person go into this state. And they continue to do it because there's really no alternatives. Now, some alternatives have been developed, like Propofol, but Propofol is not strong enough and deep enough to be able to do some of the surgeries around here. So that's been -- that's just been phenomenal. And we've done that small study in now our... (phone buzzing)

T. A. Rosolowski, PhD
0:44:11.4
You need to take that?

L. Cohen, PhD
0:44:12.8
No. Doing a... I just submitted, and hopefully we'll have approved soon, to the IRB here to do a randomized trial of this, and have a grant under review at the NIH to try and get some big funding to have it done.

T. A. Rosolowski, PhD
0:44:29.6
That's amazing.

L. Cohen, PhD
0:44:30.9
So that's been very exciting, very rewarding, because it's really been pushed by the anesthesiologists and the surgeons to do this, because, again, you know, if they can avoid it... They've documented -- the anesthesiologists have documented the immunosuppressive effects of anesthesia in breast cancer cohort, so, you know, if they can avoid having to give general anesthesia...

T. A. Rosolowski, PhD
0:44:56.2
What's the reaction of the patients to being able to do that? I mean, that to --

L. Cohen, PhD
0:45:01.4
Well, some are, like, so on board. They love it, you know. And one patient actually had to have a re-excision, and they said, "Well, I want to do it with hypnosis," same...

T. A. Rosolowski, PhD
0:45:11.6
Well, I mean, not only is it amazing because you avoid all these risks and side effects, but also, I mean, to allow a patient to have an element of control of that type during a procedure, I mean, how empowering is that?

L. Cohen, PhD
0:45:27.7
And they're part of the process. You know, they're awake during the whole procedure. They're conscious. They hear. You know, so it's not for all surgeons. You know, there's the stereotypical surgeon who, you know, is having conversations, you know, during surgery, and jamming on the heavy metal music, and, you know, those days, I think, are, you know, past to some degree. But, you know, there's still those surgeons who don't want the patient awake, for multiple reasons. The surgery, I don't believe -- we don't really have a great comparison, but it

certainly doesn't take longer, but everyone has to be quiet. Everyone has to speak in hushed tones, and they have to be polite to each other, and they -- the patient's awake. (laughter) You know, they're right there, talking, as appropriately, with the hypnotherapist. So...

T. A. Rosolowski, PhD
0:46:29.3
Yeah, changing the culture of the surgical suite. (laughter)

L. Cohen, PhD
0:46:31.2
Totally changing the culture. And it's a great change. And, not surprisingly, the -- actually, the primary surgeon and anesthesiologist are women who are pushing this.

T. A. Rosolowski, PhD
0:46:43.9
Oh, interesting, yeah. Huh.

L. Cohen, PhD
0:46:46.9
I'm guessing not a coincidence. There are some women surgeons who are not excited to be involved, either, so it's not a purely gender thing. And the two anesthesiologists who are not part of the breast group who have really started this whole area from the anesthesias end are men: Ian Lipski, who's a brain surgery anesthesiologist; and Kenneth Safire. And Ian's actually been doing this with the open craniotomy patients for years and years, just kind of -- it's his standard of care, because those patients, you know, get knocked out to cut the skull open, and then they have to wake them up, and they're awake during the whole surgery. They're on, you know, all kinds of things, but they have to be conscious, they have to be able to speak, and so Ian keeps them relaxed with this form of --

T. A. Rosolowski, PhD
0:47:40.6
Interesting, yeah. Well, so it makes sense that he would be on board. I mean, he's already seen that it's possible, and --

L. Cohen, PhD
0:47:46.1
That's right.

T. A. Rosolowski, PhD
0:47:46.5

-- you know, the culture of the surgical suite doesn't -- isn't destroyed. (laughter) You can actually function.

L. Cohen, PhD
0:47:52.8
And that he kind of needs it. And they're different patients -- again, because, you know, they're awake, and the surgeon needs them awake to be able to know that they're not damaging things.

T. A. Rosolowski, PhD
0:48:02.5
Right, right, interesting. Wow, that is incredibly exciting.

Interview Session: 03
Interview Date: August 24, 2016

Chapter 13
Research with Chinese Partners at Fudan University Shanghai Cancer Center
A: The Researcher;

Codes
A: The Researcher;
B: Building/Transforming the Institution;
D: Understanding Cancer, the History of Science, Cancer Research;
A: Professional Path;
A: Overview;
A: Definitions, Explanations, Translations;
C: Research, Care, and Education;
B: Research;
C: Patients; C: Patients, Treatment, Survivors;
C: Cancer and Disease;
C: Professional Practice;
C: The Professional at Work;
C: Collaborations;
D: Cultural/Social Influences;
D: Global Issues –Cancer, Health, Medicine;

L. Cohen, PhD
0:48:07.0
So that's the kind of -- you know, trying to really incorporate these mind/body practices within the standard of care, alongside radiation, or alongside chemo, embedded within medical procedures, etc. Just to shift for a little bit to another area that's taken up a significant portion of my career is the work we have done with our colleagues at the Fudan University Shanghai Cancer Center, which is a sister institution in Shanghai, China. So in -- I believe it was in 2002, the National Center for Complementary and Alternative Medicine, which has since changed its name to National Center of Integrative Medicine and Health, released an RFA for international centers of excellence, pairing a US institution with a foreign institution in the country that had a very strong indigenous medical culture -- for example, Ayurvedic medicine from India; traditional Chinese medicine from China; Kampō in Japan, if you were interested, but I don't think anyone submitted grants; homeopathy; Curanderismo from Central and South America; Native American medicine. So these are intact medical systems from other cultures that have their own diagnosing, prescribing, you know, their whole philosophy of medicine that's very different from our Western view of medicine. So when that RFA came out... That RFA came out, like, right around the same time that I took over as, you know, kind of formally the director of the Integrated Medicine Program, and the Integrated Medicine Program was founded, you know, in 2002. And I was lobbied by MD Anderson colleagues from China, from India, from

Japan, and from Korea, to pick their country, and that, you know, they had relationships with such-and-such a hospital, and, you know, "I want you to, you know, go on and work with them." And so I already had kind of started the relationship with my colleagues in India, in the area of yoga. And I can't remember the exact RFA, but, you know, they -- and NCI joined on, as well, even though it was an NCCAM RFA -- NCI, National Cancer Institute. And they, meaning NCI, I knew was very interested in the natural product side of this, and everyone was interested in the natural product side of this. And I hadn't gotten that involved in any research in that area of natural product drug development. It's really drug development, preclinical, phase one, phase two.

[0:51:49.3]

So early in 2003, I went to China, and went to a number of different institutions set up primarily by Dr. Zhingxing Liao, who's now -- who continues to be at MD Anderson, professor in Radiation Oncology, who specializes in lung cancer. And she had colleagues at Fudan, as well as in Hunan, and I went to Beijing, as well, and essentially interviewed and was interviewed by, you know, these different individuals. All these hospitals, as essentially every hospital in China has, they're either a traditional Chinese medicine hospital that has conventional medicine, or they're a conventional medicine hospital that also has traditional Chinese medicine. And the traditional Chinese medicine hospitals that had a little conventional medicine were too uncontrolled. You know, they had, you know, literally -- when they were weighing out the herbs, they held scales up in the air. There was newspapers all over the tables. There was herbs literally all over the table, all over the floor, just because of the speed that they needed to go through to, you know, put these formulas together. There wasn't a lot of care and precision that we would need in the West. Now, frankly, the -- you know, when you're boiling up some of these herbs, you know, if there's a little extra pinch of that or this, you know, it's all a hot water extract, so it's probably not going to make a huge difference clinically, but for research purposes we needed something that was a little cleaner. I also went to Korea around that time, and during this first trip, when I went to China, my wife came with me, because I knew if we were -- if I was going to actually submit this grant and embark on this not that I, you know, presupposed that I would be successful, but, you know, starting an international collaboration to form a center was going to be a big investment of my time, and I was certainly going to be there a lot, and she had the opportunity to come with me, as you know.

[0:54:12.0]

So in -- so we -- so I chose the Fudan University Shanghai Cancer Center. Their name wasn't that at the time, and they weren't a sister institution at the time, but we had close relationships already formed. And it's partly because the president of the hospital was trained here in radiation oncology, so Dr. Liao was very close friends with Dr. Jiang, the president. He modeled his hospital on MD Anderson. You know, they changed their name to kind of follow the MD Anderson name, right? Shanghai University, Fudan University Shanghai Cancer Center, right? MD Anderson Cancer Center. They used to be called Cancer Hospital, and we used to be called Cancer Hospital. So, you know, a lot of parallels there. And, you know, again, it was a Western hospital doing conventional treatment, similar stature and size as MD Anderson, their traditional

Chinese medicine pharmacy was immaculate, everything weighed and put in little packets, and, you know, very, very well done. And there was a department of traditional Chinese medicine that was very interested in particular in natural products research. So we designed a study -- the initial grant was an R21, which is just two years to allow the centers to start to work together and to develop a plan of what they would do for the subsequent competition two years later, which was a U19 grant, which is a center grant where the institutes -- the -- have a little more say than your standard center grant, like a P01, but the same kind of concept. So I learned about traditional Chinese medicine very quickly, read Dr. Ted Kaptchuk's wonderful book called *The Web That Has No Weaver*, read it actually on the plane flight over my first time to China. Fell in love with Shanghai, as my wife, Alison, did, as well, just this crazy, you know, urban city on steroids that was just going through this crazy development during that time, and continues today. But that was really where it was starting to accelerate, in 2002, 2003. And extremely Western. And it was really just a juxtaposition of living in Houston -- we both grew up in Toronto, which is a vibrant city, and there's people on the streets all the time, and you're walking everywhere, and then we land in Houston, where, you know, it looks like, you know, the air raid signal just went off and everyone's hiding inside and you never see anyone in the street, and if you see somebody walking on the street you say, "That's weird, somebody's on the street," and then you think, that's weird that I think it's weird that somebody's walking on the street.

T. A. Rosolowski, PhD
0:57:30.7
Did -- I don't know if I told you, but when I -- during the time when I was housesitting for you guys, I would often walk up to the library, or I would, you know, walk up to Starbucks or... I actually had people slow down and ask me if I needed help, because... (laughter)

L. Cohen, PhD
0:57:47.0
Yeah, so that's it. That's, like... That's sort of the perfect --

T. A. Rosolowski, PhD
0:57:51.6
Very car culture, yeah.

L. Cohen, PhD
0:57:53.0
-- example. So we immediately fell -- we're foodies, and the food is just, you know, sensational. You know, they had the same kind of obsession with food that, you know, my Italian culture has, and so I just loved it. So, you know, I would go -- so during those first two years, you know, I went about three times a year, usually in two-week stints, always had this sort of, like, army of people that I went with, including Dr. Liao, Dr. Joseph Chang, who's anesthesiologist and acupuncturist, was one of the key folks, as well, to help make this relationship a success. He

ended up actually marrying one of the anesthesiologists from there, and she's now here at MD Anderson, during our times over there, and stuff happening behind the scenes that I didn't know about. (laughter) And so we designed three clinical trials, a study in three areas: so one was natural products; one was acupuncture; and one was Qigong -- you know, mind/body. So the Qigong we used a similar model that we did here with the yoga study that was successful, of incorporating into radiation, so they would get the Qigong, or they would get the usual care. Acupuncture was the study for treating prolonged ileus after surgery for abdominal surgery, which was a study we'd also done here, so trying to replicate it there, grabbing low-hanging fruit. And then the natural products area was a little more challenging where to start, and we started with a product called huachansu, which is the extract from a toxic toad, which has been used in traditional Chinese medicine for centuries, and there was a company that makes an oral formulation, and an IV formulation, and it's, you know, speaking to -- every hospital that we spoke to, it is part of their formula for liver cancer, for pancreatic cancer, and other cancers, but those two cancers were really the specialty of my colleagues in the traditional Chinese medicine department. So we actually, you know, started those three clinical trials in the first two years. Nobody else out of the eleven grants that were awarded actually started a clinical trial, and, in fact, we finished two of them, as part of the first grant -- the Qigong study we didn't finish -- and continued it when we submitted the U19. We were actually successful in getting the U19 funded, which was for a subsequent four years, and then did a phase two of the huachansu study, did an acupuncture study for xerostomia, and then we did a follow-up acupuncture for xerostomia. So over the course of the R21 and the U19, we conducted seven clinical trials in Shanghai, and, as you know, we had the luxury of, with John Mendelsohn's support, who was super supportive, of spending six months living in Shanghai, which should've been a full year -- and in hindsight, it should've been a full year, but...

[1:01:40.8]

So that was -- I mean, I could spend two hours talking about everything that went on in China, and the politics, and around Qigong, and translation issues, and people having to leave a meeting to go to the Communist Party meeting, you know, in the auditorium, and if you weren't part of the Communist party you were going to be, you know, passed over for chairmanship, and so it was, you know, just -- it was so difficult, and so rewarding to do that kind of research. Because at that point I was actually already kind of bored with my career here. You know, I kind of... You know, I'd already been very successful in getting R01s, and publishing in at least, you know, what you could call the top-tier oncology journals -- *JCO*, etc. And I thought, well, you know, more of this. You know, I've already done this, moving on kind of thing.

T. A. Rosolowski, PhD

1:02:49.3

Open a restaurant, right? (laughter)

L. Cohen, PhD
1:02:50.9
Yeah, I mean, so going to China and having to work with people who don't even speak English and have a totally different sensibility, and, I mean, it was the challenge that I kind of needed at that time, and I kind of hadn't seen, you know, exactly where I should be, let's say, putting my efforts and not focusing on the short-term excitement of getting grants funded and that kind of thing. So...

T. A. Rosolowski, PhD
1:03:22.0
So what were your big decisions coming out of that experience?

L. Cohen, PhD
1:03:25.9
Well, so what was the most successful in a, I guess, conventional sense of positive studies, like clearly positive studies, was the acupuncture research for the radiation-induced xerostomia. So that led to us applying for and being successful in -- successful to a degree that we got a perfect score on the R01, which up until then I'd actually never really heard of, and since then I've heard of other perfect scores, but this was kind of early when the NIH shifted their -- the way they scored grants, and we got a perfect score to do a multicenter trial of acupuncture for radiation-induced xerostomia. So this was another four years, so this is now, you know, going on -- you know, my first trip was 2002, 2003. We're now 2016 and we've just finished recruiting the last patients on that R01. So, you know, the relationship has waned, partly because we've subsequently tried to get funding from the NIH to continue the radiation-induced xerostomia research by going and doing more neuroscience, and we haven't been successful. So I'm not sure where the relationship will go, if it'll go anywhere. We have continued the huachansu research, the toxic toad venom, with the company through sponsored research agreements. So, you know, if you look at all the centers that were funded, there was only three funded. I think... I think you can say ours was, under all measures, probably the most successful, but one of the measures of success is, one, now that traditional Chinese medicine department does a ton of research, and actually with companies like Bayer and other companies. As part of this -- again, I could do a whole two hours just on this center -- you know, we brought the nurses over here. Every nurse who worked on the study had to spend three months at MD Anderson to be trained under our nurses, work with the phase one program, do all the trainings that nurses went through. All the doctors had to come here and spend at least a month, do our IRB, human subjects. That hospital, when we first started, didn't have an IRB. Now they have an IRB, they do scientific review. I mean, it's parallel. It's -- everything is parallel. What was I going to say? Oh, so we're continuing the huachansu research, not with the hospital but with the company, to develop an extract from this toxic toad that will be more potent -- oral, ideally, because the IV formulation's not reasonable to do in the West, where you have to have an injection, an IV drip every day for 14 days. Right? That's... I mean, they do a lot of inpatient treatment. We don't.

T. A. Rosolowski, PhD
1:06:39.6
What does the venom extract actually do?

L. Cohen, PhD
1:06:43.8
So Dr. Peiying Yang, who's a preclinical associate professor in the Integrated Medicine program does all the preclinical research in this area, and it's a cardiac glycoside, and, you know, she's kind of mapped all the mechanisms behind why huachansu works, and it's a very encouraging product, and very potent. And, in fact, the company that was a small company in Anhui Province that -- who we were working with, they were subsequently bought by the largest natural products company in China during this whole relationship, and it's -- there's no question in my mind it's partly due to all this attention that huachansu was getting in the West. When we published the first paper, there was actually a -- I was living in China at that time, and they did a big -- NBC did a big national story on huachansu -- well, big meaning, you know, two- or three-minute clip on, you know, the work that we were doing there. So...

T. A. Rosolowski, PhD
1:08:02.4
But, I mean, what -- how is it used? What is the effect that it has on the body or cancer?

L. Cohen, PhD
1:08:10.9
You mean mechanism, or does it work?

T. A. Rosolowski, PhD
1:08:11.9
No, I mean... No, I'm accepting the fact that it works. I'm just --

L. Cohen, PhD
1:08:14.8
Well, no, no, we don't even know if it works. They use it, though, all --

T. A. Rosolowski, PhD
1:08:16.7
But I mean -- but I'd be -- but what -- how does it affect a patient? What are the results in a patient? Does it make the cancer go away? Does it shrink a tumor? I mean --

L. Cohen, PhD
1:08:26.7

I don't know. So, I mean, our phase two trial wasn't successful. It was randomized. You know, Gemcitabine for advanced pancreatic cancer patients -- everyone got Gemcitabine with or without huachansu, and the huachansu didn't seem to add to it, but, you know, there's a lot of reasons why that probably didn't work, and actually John Mendelsohn said, "You know, in hindsight -- and hindsight's easy -- you probably should've done huachansu against Gemcitabine, and you may have shown that huachansu is as good as Gemcitabine." But Razelle Kurzrock, who helped with the first phase one study, used to be head of our phase one program, who's now at UCSD, she's like, "Well, Gemcitabine's not even a good drug." So we're kind of in a murky, not great world. You know, they use it, and the company continues to fund research in a number of different areas. It's not part of the Western pharmacopeia, because there isn't good enough evidence yet that it works, and from our perspective we needed to make, and will continue to work with the company to make, a better product. So during this experience, I had learned a lot about, you know, as my crash course in drug development and preclinical research and, you know, the FDA, and INDs, and phase one, phase two, phase three clinical trials. So how are we doing on time?

T. A. Rosolowski, PhD
1:10:05.4
It's ten minutes after 10:00.

L. Cohen, PhD
1:10:07.6
Oh, okay, we have time. So...

Interview Session: 03
Interview Date: August 24, 2016

Chapter 14
A New Holistic Focus on Quality of Life and Transformation
A: The Researcher;

T. A. Rosolowski, PhD
1:10:14.9
So what's the relationship with Fudan now? I mean, are you -- or what do you expect in the future?

L. Cohen, PhD
1:10:21.7
I don't know. I mean, so I'm, I'm kind of a mixed... The area that I've really gotten interested in, that we can start to shift to and give you the story, is looking at comprehensive lifestyle change. So all this research that I've described to you so far is what we could call reductionistic research: yoga for breast cancer patients during radiation to improve sleep or quality of life; acupuncture to treat xerostomia; huachansu as a single product to treat cancer patients, drug development, that kind of stuff; research that Peiying's doing, ongoing, super exciting, looking at the harms of sugar in animal models, just this one constituent. I have colleagues in behavioral science doing exercise research, and trying to get people to lose weight. And in our clinic, in the Integrated Medicine Center, when patients come in they meet with an integrative oncologist, or integrative medicine physician, and we review everything that's going on in their life. You know, how are they sleeping? What is going on with their mood? How are their symptoms? How many fruits do you eat on a regular basis? Are you exercising? What's your stress like? Do you meditate? And we prescribe a prescription for them that targets the areas of social -- of physical, mind, spirit, and social wellbeing. And we weren't doing any research in that area, and we weren't testing anything in that area. And, you know, I've started to get more and more interested in that, from my conceptualization -- and this actually happened when I was living with my grandmother in Italy, back in nineteen eighty... Oh, when was I there? Eighty-seven, '88, after I graduated from college, and became pure vegetarian, and was doing yoga every day with her, that, you know, not only was my body changing physically, but I became much more sensitive to the foods that I was eating. I was becoming -- colloquially, overused term -- more mindful, you know, mindful about everything in my life, and realized that it people engaged in Yoga, with a capital Y, that that would happen. So when I started the research with VYASA in particular, because they come from this -- and I didn't describe sort of their history: Vivekananda was the first individual back I think it was in 1895, 1890-something. We can actually look it up, because he came and he gave a talk at the Convention of Religion, or there's some international convention of religion, and he talked about yoga. Again, this was back in the late 1800s. This is, you know, pre-Beatles, pre-Maharishi Yogi and all that stuff.

T. A. Rosolowski, PhD
1:14:09.1
What would you do without Google?

L. Cohen, PhD
1:14:11.0
Yeah. Parliament of the World's Religions, 1893, is when he gave that lecture. And, you know, he sort of, you know, brought to the West these Eastern concepts of yoga. Anyway, why that... Why that segue is because my colleagues, the Vivekananda group, base their yoga on the ancient texts, and really going back to traditional yoga, not yoga as it's been conceived of in the West. And that really resonated with me because, you know, I wanted to go beyond just the physical, which has been the main focus of the West. You go to the YMCA, there's not a lot of meditation. There's not a lot of yogic philosophy. And, you know, so they talk about diet, they talk about, you know, the body as this temple that you need to, you know, treat appropriately, and interaction with others, and, again, yogic philosophy. So I kind of knew in living with my grandmother that if you're to engage in Yoga with a capital Y, then everything in your life would sort of change, and yoga was kind of a gateway to get you to become that better person. And so that's why working with the Vivekananda group was very appealing. You know, they -- you know, it's -- you know, at the end of their talks that they would give, they would have, you know, these grandiose statements, like, "Well, if everyone in the world was just doing yoga, then that would bring peace to our world." And, you know, at the time I was, you know, sort of rolling my eyes -- whatever, we need to do a clinical trial and get the grants submitted. But, of course, they're absolutely right, and that's kind of this crazy mission that they're on. They've now been deemed a degree-granting university. They have been for a number of decades now, where they give PhD in Yogic Sciences, and people have -- they have to do research in yoga. They have to learn yogic philosophy. They read the texts, and they have -- typically are doing some type of clinical trial, whether it's in pediatric populations or schoolchildren or Alzheimer's or diabetes or obesity, etc. They're graduating hundreds and hundreds of students every year from this university to try and get everyone in the world to be doing yoga, to bring peace to the world. I mean, so it's like, you know, kind of incredible.
[1:17:02.9]
So what was clear to me in our yoga research that continues today is people aren't doing yoga as a capital Y. Now, some of the women became really engaged with yoga, and it did transform their lives, and there's many examples. This one woman, you know, loved it so much she hired our yoga therapist part-time to come to her work every week to teach her and her whole staff, and she had a small company of forty-something people. And I believe many of these people did have their lives transformed by yoga, but it was really the minority. And, you know, when a friend of mine is diagnosed with cancer, if somebody walks into the Integrative Medicine Center, or a friend of a friend, and you get these emails all the time, I don't say, "Well, you know, why don't you just do yoga during radiation? Everything will be fine." I talk about their sleep. We talk about their diet. We talk about exercise. We talk about stress, and, you know, mind/body,

and engaging this, and so what one would call a more comprehensive approach. So in 2009, I believe it was February -- and this is in my book, and we'll get to that -- in February of 2009, John Mendelsohn sends me an email and says, "I've just come back from Davos, Switzerland, where I was a speaker at the World Economic Summit, and I was on a panel discussing, of course, health, with this psychiatrist from Pittsburgh named David Servan-Schreiber. Have you ever heard of him?" And I was like, "No, I've never heard of David Servan-Schreiber." And I looked him up, and he's a psychiatrist and, you know, did research in, I think, schizophrenia and some other psychiatric disorders, MD/PhD neuroscientist. And John said, "Well, you know, I encourage you to read his book, *Anticancer: A New Way of Life*, and if you're interested, I'll support inviting him to give a talk, because I think he's, you know, right on target. So, you know, John Mendelsohn. We're talking about the president of MD Anderson, right, (laughter) who, of course, you know, is the reason why we founded and had a super successful integrative medicine program.

[1:19:32.7]

So I read David's book and was just blown away, not only his personal story that he was diagnosed with a brain tumor, living in Pittsburgh, peak of his career, publishing in top journals, ego, you know, bigger than, you know, you could fit in a room, and was diagnosed with this brain tumor, and said, "Eh, OK, cut it out, and do what you've got to do, and I've got to get back to work." And he has this picture of himself, you know, I think it was, like, after the treatment, and sitting at a table, and he's got Coke cans, and he's on his laptop, and he's like, "You know, whatever, I gotta get back to work." And then he had a recurrence shortly thereafter, and he essentially said, "I'm not gonna survive this if something doesn't change." And when he went to the doctors and he said, you know, "What should I do now?" You know, and then he underwent chemo and more surgery -- and, you know, it was much harder recovering the second time -- essentially the doctors said nothing, just like we do here, and, you know, all around the world. And he's like, "That doesn't make sense. I'm going to go and look in the literature." He knew nothing about cancer because he was a psychiatrist. And he uncovered all the literature that exists supporting why integrative oncology exists in the first place. So back in 2003, we formed the Society for Integrative Oncology: myself; Dr. Barrie Cassileth, who is the head of Integrative Medicine at Memorial Sloan Kettering, our collaborator, nemesis, competitor in New York City; and Dr. David Rosenthal, who was oncologist and then the head of Integrative Medicine at Dana-Farber Cancer Center in Boston. He was the former head of -- president of the American Cancer Society. So the three of us partnered together, and we founded the organization called Society for Integrative Oncology, based on, you know, everything that was going on in the field of integrative medicine at the time.

[1:21:49.9]

There's -- the -- what David did so successfully in his book that was first written in French and then translated and published by a British publisher in English before it came to the United States -- and the first English translation, I believe, was in 2007, and then it was re-- second edition rereleased in 2009 -- is he brought together all the literature in the area of diet, exercise, mind/body stress, and the environment in one area, and it is very powerful and compelling when

you see it all in one place at one time. So I was familiar with in particular those three areas of research, of diet, exercise, and mind/body, not as much in the area of diet, because I hadn't gotten as engaged in the area of diet up until that point. But actually, that previous summer had read a number of lay books in this area of diet, stuff like Michael Pollan's *Omnivore's Dilemma,* and this book about the food industry, David Keller's book, *The*...

T. A. Rosolowski, PhD
1:23:14.1
The End of Dieting?

L. Cohen, PhD
1:23:15.1
The End of Overeating, America's obsession with food, and some of those books. And so kind of, you know, was building my evidence base, so to speak, in this area. And so when -- you know, so I read David's book and was like, "Wow, this guy's fabulous. Yes, John, let's invite him." So John, you know, invites him, and CC's me, and we started this email communication back in actually early -- still early 2009. It all happened very quickly. Then David came in July of 2009 and gave grand rounds, integrative medicine grand rounds, as well as doing an evening lecture. At the evening lecture it was, you know, standing room only. It was like he was a rock star. Everyone knew about this book. There was over 400 people in the auditorium. John introduced him. We had a number of our philanthropic friends who came that evening. We had Jen Duncan, who's Dan Duncan's wife. Dan Duncan subsequently died. They gave us $50 million for the Duncan Prevention Center. Mary Lester was another very important person who was there that evening, whose deceased husband is the -- was the founder and owner of William Sonoma. And so actually I didn't go out to dinner with them -- and maybe it's better that I didn't, but anyway, you know, that's hindsight. I had something else I had to do. I was with David the night before. So David went out to dinner with a bunch of these philanthropists who, you know, were enamored with David's message, and probably enamored with David, because he's super charismatic and good looking and has a French accent and blue eyes, and... And so at dinner, David's -- the message is essentially all this data is, in some sense, from a lawyerly term, circumstantial evidence. There are correlative studies, and association is not causation, so just because women who eat more fruits and vegetables live longer after diagnosis of breast cancer doesn't mean that if you do a clinical trial that's what you're going to find. So it's -- it wasn't -- these -- most of the data didn't come from experiments. And actually, the experiments that had manipulated, like fruit and vegetables, or the horrible road we went down of ill-defined fat, failed, or were really mediocre. And it wasn't until -- and David mentions some of these studies in his book, when in, like, the study that increased fruit and vegetable consumption in breast cancer survivors in a clinical trial, that you also looked at whether they increased their exercise habits. Then you started to see survival differences. But nobody had really done that kind of research. So the philanthropist said to David, "Well, what would it cost to do that kind of a study?" And he threw out this ridiculously low number of a million dollars, and they're like,

"Well, that's easy, we just get, you know, ten of our friends, we all give $100,000, and..." You know, and to these women, that was like really peanuts.

[1:26:39.7]
So David contacts me the next day, or shortly thereafter, and he says, "I gotta tell you about the conversation that we had, and these women are hot to trot. Let's -- are you interested, you know, to design a study? And let's do it at MD Anderson." And that's kind of what, you know, we needed to kind of get this question that had been sort of lingering in my head -- Yoga with a capital Y, you could call it -- this comprehensive lifestyle change. So in the next two years, with David's super hard work, as well as John Mendelsohn going with me one time to New York to do a fundraiser specifically for the comprehensive lifestyle study -- so that, again -- I mean, John is just, like, such a fabulous guy to do that kind of thing. And it's because he believed in it, and he believed in David, the message, and at the end of the day it's not belief. He's a scientist; he believed in the science, right? Because he could read the articles and see with his own two eyes that this stuff really mattered, the area of lifestyle. So we were able to raise $5 million to do this study, primarily through philanthropy, as well as some -- one foundation that helped to support this. Lots of family foundations, but... So... And literally from all over the world. So David, on his book, was extremely successful. Needless to say, he sold over $1.8 million. *Anticancer* still remains the number one lay cancer book in the world, and it was last published in 2009, and it's still in hardcover.

T. A. Rosolowski, PhD
1:28:36.5
That's amazing.

L. Cohen, PhD
1:28:37.0
Never went to softback in the US. And David died in 2011, and it still remains the number one selling cancer book. So David went around, you know, the US, and, you know, gave lots of talks, met lots of people, and through his website, as well as connections, we received I think it was close to 300 donations from, like, 48 different states, and 10 different countries, to do this clinical trial. And the clinical trial is ongoing. We call it the Comp Life Study, Comprehensive Lifestyle Change, specifically in stage two and three breast cancer patients as they're entering their radiation treatment, and, you know, this teachable moment, building on the yoga research that we did and are continuing to do. But they get intensive counseling in the area of diet, exercise, stress management, learning some yoga techniques and meditation, and behavioral counseling. So they have seven hours of one-on-one training with four therapists per week for six weeks, and then when they're done with their radiation they go home and they continue weekly contact with the behavioral counselor for six months, and then it's monthly for the subsequent six months. So really, a total intervention time of a year and six weeks. They're kind of boot camp. The study is transformational. The stories we're hearing from these women

are just -- you know, they bring tears to my eyes every time we meet and review the patients on a weekly basis and hear from each of the therapists, you know, what's going on with the patients.

Interview Session: 03
Interview Date: August 24, 2016

Chapter 15
A New Book on the How-To of Quality of Life
A: The Researcher;

Codes
A: The Researcher;
A: Personal Background;
A: Professional Path;
B: Multi-disciplinary Approaches;
C: Discovery and Success;
C: Healing, Hope, and the Promise of Research;
C: Human Stories;
C: Offering Care, Compassion, Help;
C: Patients; C: Patients, Treatment, Survivors;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
C: Professional Practice;
C: The Professional at Work;
C: Collaborations;
C: Controversies;

L. Cohen, PhD
1:28:37.0+

In I guess it -- well, I have the exact date, but that's probably not important. It was probably around 2012 that I reached out to Penguin Random House -- and I didn't know who to reach out to at that point -- and said, you know, "I have this idea of -- for a book, but I wanted to hear from you guys of what you were planning with *Anticancer*." And so they connected me with David's editor, who I had initial email conversation with, and she -- you know, I said I'd be -- you know, "If you're interested in doing a third edition, you know, I would be your guy," because, you know, I became super close with David, we're doing the clinical trial that he was part of before he died. We actually hadn't started recruiting to the trial before he died, but I think he knew that we had gotten the money that we needed to, and continue with the designing of the study. And she essentially said, "Well, you know, it's not -- we're probably not going to do a third edition, because without the author, you know, you can't -- you can't go around and give talks and do book signings on behalf of David." You kind of -- I'm totally new to the book world, of course, and that's understandable. You can't. And I said, "Well, what David's book doesn't do that I think we need is how do you do it."
[1:32:24.3]

So there's a lot of books on what you need to do: the harms of sugar, the harms of fat. You know, Dean Ornish has written wonderful books on essentially what you need to do, but there really wasn't how to do it. What was quite remarkable that we were seeing in the comprehensive lifestyle study is that we were showing women how to do it, and we were successfully at least getting them to engage in the behaviors. So, I actually didn't speak to Alison that much about this, and just we spoke briefly about it -- about her getting involved with this, and being the voice of how do you do this, because I at that point was really transforming my life, and essentially becoming vegan. My father was diagnosed with prostate cancer, and... Well, his PSA was starting to rise, and I told him what he should do, and he didn't follow what he should do, and did the biopsy, and the active surveillance, continued to consume milk and not do everything I told him to do. Super healthy guy. I mean, exercises all the time. He was even doing Qigong, and never ate red meat, and did yoga every morning, but he wouldn't stop with the milk. Anyway, that bugged me, because milk and prostate cancer are actually linked. So... But anyway, that -- he ended up having to have a radical prostatectomy. I think it was in, I don't know, 2009 or '10. I've documented all this somewhere for the book purposes. And -- so I was starting to transform my life, so Alison had to -- you know, was sort of implementing this in the home and, you know, working with our friends in our community, and, you know, she was sort of, "I'm the scientist and the voice of, you know, this is what you should do," like David's voice, "this is what you should do," but nobody put in writing, well, how do you actually do it. How do you send kids off to school with a packed lunch that is healthy, with healthy snacks, and when they come home from school instead of putting in the --I guess our generation-- Pop Tarts. I don't see those anymore, but whatever these -- those disgusting, you know, folded over pizza things with lots of --

T. A. Rosolowski, PhD
1:35:02.5
Oh, right, Hot Pockets, or...

L. Cohen, PhD
1:35:04.1
Hot Pockets, and all this, you know, junk. How do you actually get people to eat healthfully, exercise? You know, sleep has always been -- we've been so regimented, and we sleep with our children from the time they were born, and it's been very successful. You know, our 15-year-old got into bed at 9:30 last night, because he really needed it, and he was asleep, you know, 15 minutes later, and I'm in there with his older brother, helping him to make his bed. He was out, you know. Luca, the middle one, was out. And kids need more sleep than... Anyway, I don't want to get off too much of a tangent. So, essentially, I -- we pitched to the editor that we would write a book that updates the science, because, you know, David's book, second edition is 2009. He died in 2011. Now it's 2012, '13. And then really the how-to, and basing some of the how-to on the ongoing study, and that we would, you know, describe what's going on at MD Anderson with the clinical trial. They're, of course, hoping that the book would be a reveal of

the study, but it's ongoing, so we can't really... We have a manuscript under review that needs to be published before the book gets published, which is describing the trial in a peer-reviewed journal, and the patient experience. So we've pulled a lot of the quotes, and did interviews with the patients that we're incorporating into this paper, which sort of shows these life transformations.

T. A. Rosolowski, PhD
1:36:49.7
What are the patients saying that made it so exciting to you?

L. Cohen, PhD
1:36:56.7
So one patient said, "It's been 24 years since I've taken care of myself, and now I'm really focusing on myself." They're saying -- you know, they call the four therapists their four angels. They have the supports finally that are necessary to create the change. And an aspect that's actually going to be very unique about our book that doesn't exist in these other books is we're going to be prioritizing support, and establishing your support network to be able to do this, because without a support network you will fail, and without a support network you're not going to have the supports that you need to be able to implement these behaviors. And it's more than just getting your buddy together to exercise in the morning. It has to be more pervasive and network-driven. So, these women are not only transforming their own lives, they're transforming the lives of everyone around them. So, this one woman -- and we see it, because we physically see the changes, and we meet their family, the husband who's been on insulin because he has diabetes for the past ten years doesn't need insulin anymore. He's not in our clinical trial, right? And the kids, you know, are now meditating with mom because they know that it's going to help mom, and they're exercising. I mean, it's... you know, whether they keep it up, whether it decreases recurrence of disease, which is our primary outcome, we won't know for a number of years, and, in fact, everyone will view the study as a failure if we don't decrease recurrence of disease, and the headline could be, "See, you know, lifestyle doesn't matter." But these women would probably write an op-ed saying, "You guys don't understand. We are healthier than we've ever been in our lives. Our lives are transformed." And you hear this from other cancer patients where cancer is a crisis that happens in your life, and for many the lightbulb goes off and they transform their lives, and they start leading the lives that they know they should've always been leading. And somehow cancer and this life-threatening illness has given them permission to go down this path that they always knew they should've been on.
[1:39:18.5]
And I've --the first time I heard this was actually this famous Latina popstar named Soraya who was at MD Anderson, and I remember this encounter very distinctly. We're standing in front of what was then the Place of Wellness, and she said to me, you know, "I am now leading the life that I always should've been leading, having my priorities right, and even if I could go back and

change my fate and not have cancer, I wouldn't." She had a stage three breast cancer, and a few months later she died. And she was in her, like, thirties, you know, this vibrant pop star.

T. A. Rosolowski, PhD
1:40:06.0
Did she talk about her disease publicly?

L. Cohen, PhD
1:40:08.1
Oh, yeah, yeah, yeah. I mean, it became her kind of mission. So that was -- you know, at first I thought, you know, this is a one-off, but then you just keep hearing it over and over and over. And I think that's what we've been able to do, and will be able to document it, 'cause we have a measure called benefit finding, finding meaning an illness, that we've been able to help women through the behavior change, start to transform their lives. So anyway --

T. A. Rosolowski, PhD
1:40:51.4
I -- just a quick question. I mean, you're doing this study with women. What was the reason for not doing a study that also included men, or a parallel?

L. Cohen, PhD
1:41:01.3
Well, so when we decided to do the -- when we decided to design Comp Life, and to get on the bandwagon to raise the money, we -- I met with essentially people involved with the five cancers that we know are guaranteed can be influenced by lifestyle: breast, prostate, ovarian, endometrial, and colon. Lots of data in those five cancers, some more than others, that lifestyle factors can influence outcomes after a diagnosis, because we weren't doing primary prevention here. And they all lobbied hard to have them picked. Now, colon, of course, would've been a mixed cancer, but the other ones are sex-specific. Breast, you know, we've had so much experience working with the breast group. The data, you know, arguably, certainly in the area of obesity is extremely consistent, the link between alcohol and recurrence of disease, the link between obesity and recurrence of disease, and exercise and recurrence of disease, fruits and vegetables and recurrence of disease, all the research on stress and depression and recurrence of disease. It was just sort of -- we knew they were going to be an able and willing and excited population. The numbers were really high. And that was kind of it. And so we're like, we're going with breast. We don't want to... Now, do I want to go and do research in the other populations? Absolutely. And the next stage is -- and I'm hoping this week or next week to get the phone call saying, "Yes, you have the money to do Comp Life 2.0 through a philanthropist," which would be to go virtual, so they would have a six-hour boot camp here at MD Anderson, meet their four therapists, and then everything else is done on Facetime with an iPad that we give them. So they meet with their dietician in their kitchen, and our dietician is in our kitchen, but

they can cook together, and they can learn, and the same curriculum, modified, of course, to work appropriately in a virtual world. And doing the guys with prostate cancer, undergoing radiotherapy, I, you know, spoke with another foundation two weeks ago saying the only thing stopping us from going to do it with guys is funding. The NIH is not interested in funding this because it's too comprehensive. You know, there's no active ingredient here. And, you know, I'm at a point in my career where I'll say yes, but I don't care. I'm not that interested in doing the reductionistic research anymore. Hypnosis stuff totally excites me because it's transformative, with a small T. Comprehensive lifestyle change is transformative with a capital T.

[1:44:01.0]

And so the book, we ended up -- it took us a number of years to go through a super bad agent who was not supportive, didn't know what they were doing. Landed a phenomenal agent who's -- Doug Abrams of Idea Architects, who's the agent for Desmond Tutu and the Dalai Lama, and they're just putting out a book called *The Book of Joy*, where the Dalai Lama and Desmond Tutu had an extended encounter, and Doug is actually putting it together as, let's call it, the author, but it's their words. So anyway, Doug took us on, helped us put together, you know, just a rock solid proposal that Viking ended up being, and then 14 other markets around the world, 12 languages already, and we have not written it. (laughter) Technically, the book is due October 1st. We're not likely going to make the deadline, but I've heard that doesn't matter.

T. A. Rosolowski, PhD

1:45:14.2

So what's your plan for putting the book together?

L. Cohen, PhD

1:45:19.8

Oh, so, I mean, we're deep into putting the book together, and we have a collaborative writer. I don't use the term "ghostwriter" because we're writing it, but he is making it sound good. You know, I'm overly cerebral and wrapped up in fear of the medical community vilifying me and the book because we're overstating the message. The message is stronger today than it was when David wrote the 2009 edition, substantially stronger. You see it every day, every week in the *New York Times*, another article about, you know, lifestyle and health, and there's no guidelines on -- the AICR and the American Cancer Society have guidelines on cancer prevention that specifically highlight diet, exercise, weight as a way to prevent cancer. We know that at least a third of cancers in our world could be prevented just focusing on diet, exercise, and weight, not talking about environment, not talking about stress, not talking about sleep deprivation that we know is linked to obesity and, you know... So my... So in terms of the book, I mean, we're -- we just have to finish it. What Doug does really well, and why he is successful with his authors -- he's more of a boutique agency -- is we do essentially a full, essentially annotated outline of the whole book, so we know, you know, what's going into every section of the book, and we'll have to get the Comp Life paper published, because then it will be in the

peer-reviewed literature before it comes out in the book, the patient experience, because, as you know, my medical colleagues are going to criticize me for talking about a study that's ongoing, and "misleading" is probably going to be a word many people will use. The readership, that somehow doing this is going to lead to decreased recurrence of disease, yet Dr. Cohen hasn't even finished his story. So I'm -- we're going to be very careful in the book to say, you know, we're not saying doing this is going to decrease your recurrence of disease, and, in fact, the study is ongoing, but we want you to meet these women, because their lives are being transformed, and what they're sharing with us will be empowering to you. And you think it's not possible, but look at this woman who lives in Louisiana, grew up on chicken fried steak, and is on food stamps. She's doing it. She's becoming primarily vegan, and doing yoga and meditation every day, so you can, too, and meet her. Listen to her words, and what her family's situation is, and what she's overcome, and having them, you know, kind of be the social support in, you know, two-dimensional black and white for these other people who are trying to make these changes.

T. A. Rosolowski, PhD
1:48:34.1
That must be kind of frustrating, or -- you know, to feel like you have this message, and opportunity to be the voice piece to provide an outlet for these patients, essentially, but you have to be concerned about --

L. Cohen, PhD
1:48:50.8
Well, if the study was done and we should we could decrease recurrence of disease, no issue, you know? They would still criticize and say, "It's only one study, Cohen's overstating it, they need to replicate." So no matter where... You know, I'm used to it. And I was speaking, actually, on Sunday, this past Sunday -- as part of transforming our community, every Sunday dads and kids get together for what they call Sunday soccer, and, you know, kids of all varying levels -- now the eldest are seniors in high school, you know, down to 12-year-olds. But one of my colleagues is a medical oncologist, used to be at MD Anderson, now is in private practice, who has read a version of the introduction where, you know, being really cautious, and, you know, in talking to him I realized I have to just take on the persona and the ego of the stereotypical surgeon and just say, "I don't give a shit what you think. You know, this is an important message, and I know the patients it's going to resonate for. It's going to help transform their lives, as David's book has. This book is going to transform more lives, if it's successful, than David's book did, because it's going to be prescriptive, and it's going to share these remarkable stories of success, and not just the women in the clinical trial but other people that we're interviewing who are not even cancer patients making these life transformations, and sharing their stories.

T. A. Rosolowski, PhD
1:50:40.8
What's the mechanism? How are you finding those people to interview?

L. Cohen, PhD
1:50:46.0
Kind of happenstance. Some are friends, and in our community here, no question, but one remarkable story that's going to be the lead-off of the chapter called "The Wild West," which is how we're leading this Western lifestyle that's going to take us to our grave. We recruited -- we were recruiting a woman for our yoga study at MD Anderson, and she was already practicing yoga, but had heard about me, and read David's book, and gave her card to the research assistant, saying, you know, "I'd love to speak with Dr. Cohen." And I was like, whatever. Her card sat in my desk for a long time, and it sat on my -- and it was a different kind of card. It was like this big card, and it had, you know -- it was a business card, but it was, you know, large, like, postcard size. And it had, you know, this kind of fun drawing on it. So I went to her website and saw that she was blogging, and her cancer story. And for some reason I called her, and said, "No, I'd love to -- you know, tell me a bit about yourself." And she described something that was just -- it's a quintessential message that our patients get, but it links into the book beautifully, which was that she's from Baton Rouge, Louisiana, and she was diagnosed with a pretty aggressive -- I think it was stage two breast cancer. And she's going to do chemotherapy and then surgery, and then radiation, because of her stage. And at the start of chemotherapy she says to her oncologist in Louisiana, "What should I do --because I've been reading -- with my life? I've been reading about sugar, and that diet's important." She already exercised a lot, and -- but was pretty stressed out, and her diet was horrible. And the doctor said, "Don't worry about it. You're going through a super hard time. Chemo's going to be really rough. You don't have to do anything. Just enjoy your life." And so she took it to heart, and as she literally said, she went on a pity party, and donuts and ice cream and, you know, "Doc said it was OK." And by the time chemo ended and it was time for surgery or cancer it doubled in size. Now, her cancer may have doubled in size independent of...
[1:53:50.2]
So then, she's leaving medical oncology and she decided to come to MD Anderson. I can't remember where she had her surgery, but she was going to come to MD Anderson for her radiation treatment. And she's in the last consultation with her doctor, and, you know, she says -- well, you know, again, she says, "Well, what can I do?" And he said, "You know, you have a very aggressive cancer." I think it was ER negative. There's a 30% chance that it could come back. You know, she has two young kids. She's in her thirties, and she's just, like, mortified. And he said, "But there's one thing I recommend, and I'm telling you this as a friend, not as an oncologist. Read this book called *Anticancer* by David Servan-Schreiber. Oh, and by the way, I'm vegan." (laughter) And she's like, "What?" They went out and they bought five copies of the book, everyone read it, they transformed their lives on a dime, and why didn't this doctor say that six months earlier? Why didn't the doctor say this as her oncologist, not as a friend? So I went into a little more detail here because it's like, I don't know how this stuff is happening, but meeting this woman was totally random, and her story just sort of hits the nail on the head. We have a broken system, and the doctors believe the message, but they're not going to sell it

because it's not the conventional model. There's not enough evidence. I'm doing air quotes, for the stenographer. (laughter) And, is it wrong to tell an obese breast cancer patient who has a horrible diet that they really need to start eating healthfully? Some doctors would say it is because you're giving them false hope, but they're going to get healthy. They're going to decrease their risk of heart disease, which is the next disease that they are at risk for.

T. A. Rosolowski, PhD
1:55:54.2
That's a great story.

L. Cohen, PhD
1:55:55.6
Yeah, it's a great story in the book, too. And, of course, you know, there's poetic license to expand upon it. But it is the message. And Dr. Hortobagyi, the former chair of Breast Medical Oncology here, I have an email exchange that -- I save all my emails, and now I know why -- and I need to check with him before we put -- you know, go to publication, but there's an email exchange between the two of us in the book that -- you know, I would send him, you know, emails on a regular basis with the newest press release, and the newest article linking lifestyle to breast cancer and worse outcomes, blah, blah, blah. Total supporter of everything we do, but is the first to say -- and the first to not prescribe lifestyle, because it's all associations. There isn't the clinical trial. And so he's actually, you know, featured in the book as saying, "Let's do the clinical trial, and then I can prescribe it."

T. A. Rosolowski, PhD
1:56:57.9
Oh, interesting, yeah. Yeah, wow.

L. Cohen, PhD
1:57:01.9
So that's kind of where I am, literally, now, and in particular with my career, is, you know, really want to focus on transforming lives, and not by doing a little hypnosis during surgery, which, of course, is important, or, you know, a little bit of yoga while you're undergoing treatment and then you go back to your, you know, unhealthy lives, but trying to do this I guess what you could call more true transformational work, the difficult stuff.

T. A. Rosolowski, PhD
1:57:31.4
Well, you get very enthusiastic and excited when you talk about it. You know, it's obviously where your heart and spirit is right now, for sure. I mean, what do you see kind of long-term? You've got the book, and so where do you see all this going in five, ten years?

Interview Session: 03
Interview Date: August 24, 2016

Chapter 16
The Future of Integrative Medicine
A: Overview;

Codes
A: The Researcher;
C: Healing, Hope, and the Promise of Research;
B: Building/Transforming the Institution;

L. Cohen, PhD
1:57:50.6
I don't know. I don't know. I mean, I can picture a lot of different things, some of which don't include me being here, or some of which would include me being here if this institution is willing to embrace it. Frankly, at the moment, they're not. They are permissive. They are weakly supportive. And compared to many other places we are phenomenally large and successful, but, you know, you know MD Anderson, and you see what we're investing in the Moon Shots and, you know, all these other programs, and we're a drop in the bucket, you know. Does that mean I want, you know, the institution to support with millions and millions? No, but we have one dietician, one psychologist, one exercise coach, and two doctors, and now I'm going to have to go and fight for a third doctor when we're in the non-economic crisis.

T. A. Rosolowski, PhD
1:58:54.2
Right. What's -- how does MD Anderson in integrative medicine compare with other institutions?

L. Cohen, PhD
1:59:01.7
Oh, it's much larger. It's much larger.

T. A. Rosolowski, PhD
1:59:03.5
Really?

L. Cohen, PhD
1:59:04.3
Yeah, other institutions have to rely on philanthropy. They have to rely on patient revenue. And we rely a bit on philanthropy and patient revenue, but, you know, at the support of now Patrick Hwu, the division head, and Buchholz, physician in chief, we're a pretty significant loss leader.

T. A. Rosolowski, PhD
1:59:33.6
Could you imagine, or is there a chance that if your book is very successful, if the study does, indeed, show an impact on disease outcomes, or reduction in disease, would it turn around the institution's attitude?

L. Cohen, PhD
1:59:52.0
Well, my hope, it's -- goes beyond the institution, right? I mean, independent of the book, it's all about the study. I think if the study's successful, and we can show that we can do it here, in person, intensive, and the next, what we're calling Comp Life 2.0 in more virtual -- because the criticism is going to be, well, that's so intensive and it's so expensive. Well, as we talk about in the article that hopefully will get published, it's 72 hours of counseling. Some may say that's a lot. I would argue that's not a lot if we can decrease recurrence of disease. If that study's successful, and the book will be a vehicle, of course, of communication, we'd have to obviously publish a second edition pretty quickly after the study comes out, and the timing's probably going to be right, because this book, if we're anywhere near on schedule, will come out sometime in 2017, and this study will probably get published in '19, or even '20, so that, you know, would be a good follow-up. Is that -- you know, as John said to me, Mendelsohn, years ago, "Can we get reimbursed for dietary counseling, exercise counseling, and behavioral counseling?" Sort of like the three-legged stool of creating this change. And I said no. And then he said, "Well, what -- how am I going to pay for this?" Because our hospital makes money primarily based on insurance, and insurance isn't willing to pay for it. If there's a clinical trial published from MD Anderson, that's not going to be the only reason insurance is going to step in, but the time is right. This study, if positive, is going to come out at a time where the evidence from the epidemiological side is just overwhelming, and then we'll have a clinical trial from the number one cancer center in the country saying, and if you modify the risk factors, as Hortobagyi described it, we can modify the outcome. And then that could be a tipping point. Probably overly optimistic, because, again, we're -- it's not a fancy drug. It's not a gene manipulation, although the genes will probably change when we're measuring all that stuff. But until it's reimbursed, until it's paid for, we're not going to do it. You know, we'll do what we're paid to do. So, I'm hopeful, but I'm also realistic that that may not happen.
[2:02:49.2]
On the side, if MD Anderson's not excited about it, and insurance isn't going to pay for it, I still think it needs to be done, and so there may be a spinoff company that exists to train people in this area. There's lots of lifestyle coaching going on now, but I think they're kind of missing that -- the critical element of social support, which is necessary to be successful and to have long-term engagement in lifestyle change. Almost everyone in this country has gone on a diet, and almost everyone in this country has gone off a diet. And what allows people to sustain, I think, is kind of the missing ingredient. And, you know, I'm no different -- you know, there's a lot of people in this domain -- this is going to become a really crowded and popular domain in the

years to come, and that's great, you know, both private and public. I know when the Obamas leave the White House, I would be shocked if Michelle Obama didn't start a foundation that focused specifically in this area of health and wellness and trying to create true transformation, which I think she'll be more successful at doing outside the White House than she was as a marginalized First Lady, because our country can't deal with women leaders, as we're seeing (laughter) in the current situation.

T. A. Rosolowski, PhD
2:04:24.9
Let's hope they prefer them to the alternative. (laughter)

L. Cohen, PhD
2:04:28.0
Yeah, who knows? So I don't know where it'll go. I don't know where it'll go. But I kind of have a feeling that things will change if this book is very successful.

T. A. Rosolowski, PhD
2:04:39.3
Yeah, yeah. Well, it's a --

L. Cohen, PhD
2:04:42.2
Looking forward to it, if...

T. A. Rosolowski, PhD
2:04:43.2
Oh. Absolutely, yeah. And a great -- I mean, I thought it was interesting -- you know, you had the turning point of Fudan when you, you know, needed that in your career, and now you've got this, so this -- these phases in your career, which are all good turnarounds.

L. Cohen, PhD
2:05:00.6
And I try to, you know, in -- so the thing with Fudan -- what's interesting that's going on in Shanghai is, you know, they -- China and India are now becoming the -- not becoming -- China and India are the diabetes capital of the world, and they are leading the Western lifestyle. They're leading, you know, the Reagan-era good life, in particular in China with this burgeoning middle class. I was just speaking with Peiying, who I was describing briefly, who is doing the research in sugar and doing a lot more research pre-clinically in animals, and we were talking about rice, and she's shown that white rice flour in her animal models is as bad as sugar. And I said, "But what about, you know, the Chinese? You know, the Chinese have been eating rice, white rice in particular, for millennia, and they, until recently, had the lowest breast cancer, the

lowest prostate cancer." And she said, "Well, for most of the time actually they never had enough food, so they were on calorie restriction. Now the Chinese are eating fast food, eating tremendous amounts of food, and breast cancer's the number one cancer in China, in the urban areas." And so when I was at Fudan and meeting with the president of the hospital -- this was back in 2002, 2003, and we're going through the different cancers that we could study, because it's unique -- they have different cancers. They have more liver cancer. They have more nasopharyngeal cancer, due to EBV, and here it's our -- that cancer's due to HPV. And I said, "Well, we probably aren't going to do much research with breast cancer." And he goes, "No, no, no, breast cancer is the number one cancer in women in Shanghai." And I said, "What? I thought it..." You know, I read the China study, and it's the lowest. And he said, "Western lifestyle." The diet, the lack of exercise, the chronic stress, women joining the workforce. It's probably the pollution, but it's hard to sort of put your finger on pollution. So I've tried to interest my colleagues at Fudan in comprehensive lifestyle change. What better...? And Taiwan and China have bought our book, so perhaps that would be the vehicle, if the book is popular in China, to then start some research with Chinese breast cancer patients, which is a growing epidemic in the country. So I hope to actually get back engaged, either in China or in India, because I grew up in Italy, and my wife grew up in England, and being trapped in Houston is not something certainly we want to do after Chiara graduates, which is in six years. It's not very long. (laughter)

T. A. Rosolowski, PhD
2:08:18.8
And her name again is...?

L. Cohen, PhD
2:08:19.7
Chiara, C-H-I-A-R-A, and that's our last of three.

T. A. Rosolowski, PhD
2:08:26.0
So there's Chiara, there's...

L. Cohen, PhD
2:08:27.9
Chiara, Luca, and Alessandro.

T. A. Rosolowski, PhD
2:08:34.4
Well, I know --

L. Cohen, PhD
2:08:34.6
So, yeah, who knows what the future has in store.

T. A. Rosolowski, PhD
2:08:37.4
Yeah, but all exciting stuff, which is cool.

L. Cohen, PhD
2:08:41.3
Yeah. Yeah. Got to get the book written first.

T. A. Rosolowski, PhD
2:08:45.5
Well, I want to thank you for --

L. Cohen, PhD
2:08:46.0
Looming over us.

T. A. Rosolowski, PhD
2:08:47.3
I want to thank you for your time, and, you know, is there anything else you'd like to add?

L. Cohen, PhD
2:08:51.6
I don't think so. (laughter)

T. A. Rosolowski, PhD
2:08:52.6
OK. (laughter) It was a really interesting conversation. I thank you for spending the time.

L. Cohen, PhD
2:08:59.5
Yeah, again, could do a whole one on China. And I needed to write a paper on this China experience but never wrote... You know, I've only written the scientific papers, not the -- you know, the kind of how do you start a center, and the cultural side, and...

T. A. Rosolowski, PhD
2:09:14.9
Is that something you want to cover? Do you want to schedule a time to do that? I mean, it's an interesting institution-building topic.

L. Cohen, PhD
2:09:24.3
Yeah, I don't know. I mean, if you -- have you done an interview with [Oliver] Bogler [oral history interview] yet?

T. A. Rosolowski, PhD
2:09:29.6
I have, but he hasn't -- he didn't talk in detail, really, about that from an onsite --

L. Cohen, PhD
2:09:33.9
He didn't talk about the sister institutions?

T. A. Rosolowski, PhD
2:09:35.4
He did talk about them, but not from an onsite perspective. If you'd like to do that, I'm more than willing. It'd be a very interesting perspective.

L. Cohen, PhD
2:09:42.9
Well, let's hold for now, but --

T. A. Rosolowski, PhD
2:09:43.6
But let's... OK. We can chat about it, keep it on deck.

L. Cohen, PhD
2:09:47.1
Yeah, when we get the book done.

T. A. Rosolowski, PhD
2:09:48.4
Yeah, sounds good. (laughter) All right, well, for the record, thank you again, and I am turning off the recorder at ten after 11:00.