Ethan Dmitrovsky, MD  
Session One: 3 March 2015

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Chapter 00A

Interview Identifier

Tacey Ann Rosolowski, PhD  
[00:00:00]  
All right, and so we are recording, and it is about sixteen minutes after nine. Today is the third of March, 2015, and I am Tacey Ann Rosolowski. This morning, I am interviewing Dr. Ethan Dmitrovsky, and am I pronouncing your name correctly?

Ethan Dmitrovsky, MD  
[00:00:17]  
Yes, you are, well done.

Tacey Ann Rosolowski, PhD  
[00:00:18]  
All right, well, the Rosolowski can pronounce the Dmitrovsky.

Ethan Dmitrovsky, MD  
[00:00:21]  
Well done. (laughter)
Tacey Ann Rosolowski, PhD
[00:00:23]
So I’m interviewing Dr. Ethan Dmitrovsky for the Making Cancer History® Voices Oral History Project, run by the Historical Resources Center at MD Anderson Cancer Center in Houston, Texas. Dr. Dmitrovsky came to MD Anderson in 2013 to serve as the institution’s provost and executive vice president. He also has a faculty appointment in the department of Thoracic/Head and Neck Medical Oncology in the Division of Cancer Medicine. This interview —

Ethan Dmitrovsky, MD
[00:00:52]
And also, I have a faculty position in the Department of Cancer Biology.

Tacey Ann Rosolowski, PhD
[00:00:56]
Oh, OK.

Ethan Dmitrovsky, MD
[00:00:57]
So I have a dual appointment.

Tacey Ann Rosolowski, PhD
[00:00:59]
All right, thank you for adding that.

Ethan Dmitrovsky, MD
[00:01:01]
So glad to correct that.

Tacey Ann Rosolowski, PhD
[00:01:02]
Yeah, no, absolutely, and that’s kind of what this is about —

Ethan Dmitrovsky, MD
[00:01:05]
Yeah, sure.

Tacey Ann Rosolowski, PhD
[00:01:06]
— to get those details correct. This session is being held in a conference room in the provost’s suite in Pickens Academic Tower on the main campus of MD Anderson, and this is our first of two planned interview sessions. So thank you, Dr. Dmitrovsky, for —
Ethan Dmitrovsky, MD
[00:01:20]
Glad to be a part of this important project.
Chapter 01
An Early Desire to Be a Physician and Focus on Difficult Illnesses
A: Personal Background;

Story Codes
A: Character, Values, Beliefs, Talents;
A: Personal Background;
A: Inspirations to Practice Science/Medicine;

Tacey Ann Rosolowski, PhD
[00:01:24]
Well, I wanted to just start kind of at the traditional beginning and ask you where you were born, and then if you could tell me a little bit about where you grew up.

Ethan Dmitrovsky, MD
[00:01:33]
So I was born in Philadelphia, the child of parents who were traditional sort of 1950s parents, post-World War II, very tight, close-knit family. And my father was a chemical engineer, and so during that era, people had lifetime employment in one company, and so he was — as a chemical engineer, he had a lot of content expertise that was in need in his company, so we moved quite a bit. So I moved many times as a child. Born in Philadelphia, moved to New York, moved several times in New York and then moved to Boston, where I was largely raised, and then moved back to New York. And so a lot of bouncing around, which was very typical, sort of lifetime employment, and when someone worked for a company, they worked for their whole career. My father was employed by a single company for thirty-five years.

Tacey Ann Rosolowski, PhD
[00:02:39]
Did that moving around — did you like it? Did it affect you in any way, your sense of home?

Ethan Dmitrovsky, MD
[00:03:03]
So when you move around, you acquire certain skills, and one is to connect with people pretty quickly. I was oftentimes in new schools, and I learned how to make friends rapidly and adapt to new circumstances, and so that probably was a skill set that I acquired from that, yeah.

Tacey Ann Rosolowski, PhD
[00:03:03]
Yeah, some people really hate it, I know. Other people warm to it.

Ethan Dmitrovsky, MD
[00:03:05]
I didn’t — I warmed to it.
Interview Session: 01
Interview Date: March 3, 2015

Tacey Ann Rosolowski, PhD
[00:03:07]
Yeah, that’s great. Will you share your birth date too, please?

Ethan Dmitrovsky, MD
[00:03:11]
Well, I’m a little concerned about showing my birth date for security reasons.

Tacey Ann Rosolowski, PhD
[00:03:15]
OK.

Ethan Dmitrovsky, MD
[00:03:16]
Yeah, because you know, that is a way that people can access your identity.

Tacey Ann Rosolowski, PhD
[00:03:21]
Absolutely. I understand.

Ethan Dmitrovsky, MD
[00:03:22]
And so I actually don’t put that on my CV, and I’d rather not give you — I can tell you my age is sixty, but my birth date, I would rather not have that in a searchable file, for obvious reasons.

Tacey Ann Rosolowski, PhD
[00:03:32]
Yeah, and that’s fine. Thank you for clarifying that.

Ethan Dmitrovsky, MD
[00:03:34]
Yeah.

Tacey Ann Rosolowski, PhD
[00:03:36]
Well, tell me a little bit about your educational path. I mean, bouncing around to schools, that must have been kind of interesting.

Ethan Dmitrovsky, MD
[00:03:41]
Right.
And when did you know that you were going to focus in the sciences and in medicine?

Well, I was always interested in spending a life of helping people and using my abilities to devote myself to service for others.

Where did that come from?

I don’t know where that came from, other than that was always what I felt. And so, even as a child, I wanted to be a physician. So my decision to become a scientist came later in life, but as a physician, that was always my plan, so I entered college with that goal.

And you don’t know where you — how you were inspired to become a physician, just [inaudible].

No, I just — an innate feeling that I had that that would be a life of meaning.

Yeah, interesting.

Yeah, and so I always wanted to have a life of purpose and of meaning, and I thought devoting yourself to helping others with illness was an appropriate choice to make. And I wanted to focus on illnesses that were particularly difficult problems, in the hopes that I could address the needs of patients — in particular, pressing situations, so that I could be helpful to them.

When did you start to realize that you had a gift in this area, you know, strength in sciences or...
Ethan Dmitrovsky, MD
[00:05:07]
I was always a strong student, and so I didn’t actually feel I would have any particular gifts in this area, to
be truthful.  (laughter) But I was always a strong student and thought I could tackle any content
knowledge that was needed to — in any career or in any area of scholarship.  So, but no, I didn’t —
actually, I didn’t feel my skills were necessarily innately there.

Tacey Ann Rosolowski, PhD
[00:05:40]
So you were a worker.

Ethan Dmitrovsky, MD
[00:05:42]
I was a worker, yes.

Tacey Ann Rosolowski, PhD
[00:05:44]
I’ve had other people tell me that too.

Ethan Dmitrovsky, MD
[00:05:46]
Many physicians and many scientists would call themselves that, who are people who persevere and bring
our talents to the task at hand.

Tacey Ann Rosolowski, PhD
[00:05:57]
Yeah.  And I assume that your family was really supportive of your efforts.

Ethan Dmitrovsky, MD
[00:06:00]
Oh, yeah.  Yeah, but it was more of an internal feeling that I had to try to have a career of service.
Chapter 02
College Influences: A Research Project, a Book, and Working as an Orderly
A: Educational Path;

Story Codes
A: Overview;
A: Definitions, Explanations, Translations;
A: The Researcher;
A: Inspirations to Practice Science/Medicine;
A: Influences from People and Life Experiences;
D: Understanding Cancer, the History of Science, Cancer Research;
D: Technology and R&D;

Tacey Ann Rosolowski, PhD
[00:06:14]
So tell me about selecting your college.

Ethan Dmitrovsky, MD
[00:06:18]
So I grew up in the suburbs of Boston, in Needham, Massachusetts — N-E-D-H-A-M. And I’m of an age — I guess would be the way you say it is that you oftentimes went to local schools — this idea of traveling around the country to go to any school is a relatively recent event. You tended to be educated near home, so I ended up going to Harvard, because that was the place that strong students went to in the Boston suburbs, and I didn’t really look beyond New England and in driving distance of Boston.

Tacey Ann Rosolowski, PhD
[00:07:08]
Not too shabby for a hometown school.

Ethan Dmitrovsky, MD
[00:07:10]
And it’s not more complicated. And it’s so funny, because at that time in education, you were grouped based on your — I wouldn’t say capabilities, but your performance, so many of my classmates ended up going with me to Harvard, because there was a cohort that I was with since elementary school.

Tacey Ann Rosolowski, PhD
[00:07:32]
So that’s really interesting.

Ethan Dmitrovsky, MD
[00:07:33]
Yeah.
Interview Session: 01
Interview Date: March 3, 2015

Tacey Ann Rosolowski, PhD
[00:07:34]
So you had like a readymade social —

Ethan Dmitrovsky, MD
[00:07:35]
Social system. It was — surprisingly, that was the case, yeah.

Tacey Ann Rosolowski, PhD
[00:07:38]
Huh, interesting.

Ethan Dmitrovsky, MD
[00:07:39]
Yeah, so then I went to Harvard, and I majored in biochemistry.

Tacey Ann Rosolowski, PhD
[00:07:44]
Why?

Ethan Dmitrovsky, MD
[00:07:46]
Well, it was an honors major, and I wanted to have a rigorous undergraduate experience. And biochemistry, at that point in time, was a precursor to what we call molecular biology, so it was — the molecular biology of the cell was the — was what the content was about. And it was an honors major, meaning that you had to write a thesis, so I wrote a thesis with a very distinguished professor at Harvard Medical School named Daniel Goodenough — G-O-O-D-E-N-O-U-G-H — who was a professor in the then anatomy department, and it was later fused with the cell biology department. And so I was very interested in science, and I didn’t feel that I necessarily had any skills in doing research, but I wanted to have an in-depth experience. And at the same time, I worked in hospitals. Actually, I wanted to see what it was like caring for patients at a — in a sense — an entry level. So I worked in the summers as an orderly in a geriatrics hospital. I wanted to really, you know, see what it was like to be a staff member, to see if doing medicine might appeal to me. And both of those experiences I found very positive and decided to, you know, continue pursuing medicine as a career, because that was my goal when I entered Harvard, and then went on to Cornell Medical School.

Tacey Ann Rosolowski, PhD
[00:09:42]
Before we move on to that, tell me a little more about your thesis experience. Was that — that was your first real immersion in this research?
Ethan Dmitrovsky, MD
[00:09:49]
That was my first real immersion in research, and it was a thesis surrounding structures that are called gap—G-A-P—junctions. So when cells touch each other, they have specialized membrane structures. Some are called tight junctions. They’re called “tight” because they actually are points of junction that are fairly tight, meaning—the word “tight” refers to that fact that it’s a barrier to movement of molecules into the inter-cellular space. At the same time, there are other specialized membrane structures that are called gap junctions, and they actually permit communication between cells. So this was appealing to me because one of the features of malignancy is the loss of contact inhibition, so normal cells will stop dividing when they touch each other, but malignant cells lose that capacity. And there was a theory at that time that it related to the inherent physiology of either tight or gap junctions, and so it was an appealing project for that reason. I was also particularly drawn to that laboratory because it was one of the handful of labs in the world that was truly focused on molecular imaging and molecular imaging just above the level of x-ray diffraction. So these were images that—you actually could see structures. It was at the very limit of electron microscopy, and this laboratory was world-leading in electron microscopy and another technology called freeze fracture, and that allowed you to look at structures—membrane structures. So I was drawn for the physiologic reasons, and that experience was a wonderful learning experience, and I tucked away the idea, “Well, maybe science might be part of my career.”

Tacey Ann Rosolowski, PhD
[00:12:27]
And the clinical dimension, and your work as an orderly at the—

Ethan Dmitrovsky, MD
[00:12:31]
Yeah.

Tacey Ann Rosolowski, PhD
[00:12:31]
— the hospital, how did that influence you?

Ethan Dmitrovsky, MD
[00:12:34]
Well, that really gave you a vantage point of what the life of a patient was about, as you can imagine, because an orderly is—his task is actually to help the nursing staff in all the—any activities: moving patients, caring for them. And I wanted to have the vantage point of the patient. I wanted to see what the patient’s experience was like, because if I was going to devote myself to the care of patients, I wanted to see what their—what the experience of a patient was at the bedside in the hospital, and oftentimes, in the hospital that I was working in, very debilitated patients. I wanted to know whether that was an experience that could illuminate—I was still deciding for sure whether to have a career in medicine—I wanted to really see that. And I learned a great deal of the value of caring and compassion and to listen to people’s stories—older people really are great storytellers—and to learn from their wisdom of years. And it was really a very valuable experience for me, professionally and personally, yeah.
Tacey Ann Rosolowski, PhD
[00:14:06]
Sounds like it was a great decision.

Ethan Dmitrovsky, MD
[00:14:08]
I mean, I think the other thing you see is in elderly patients who are hospitalized because they’re debilitated, you see the grace of their families. And I guess that’s another learning lesson that I took from that experience, was to see the grace of families who cared for their patients, some of whom had cognitive disorders and didn’t fully recognize them, and others who had severe neurologic impairment were able to recognize them. It taught me a lot about how important it is for a family to be involved [in care?], and so I wanted to try to tackle, in my career, complex medical problems for several reasons. One is I thought the ability to positively influence the lives of patients and their families was — of the very nature of that — greater than other disciplines. And secondly, I wanted to tackle an area where I thought there would be tremendous progress, and that’s why I always thought about oncology.

Tacey Ann Rosolowski, PhD
[00:15:22]
Yeah, I picked up on that when you were talking about how, even with that early project, there was a cancer connection there —

Ethan Dmitrovsky, MD
[00:15:29]
Yeah.

Tacey Ann Rosolowski, PhD
[00:15:30]
— and so that was always on your horizon.

Ethan Dmitrovsky, MD
[00:15:33]
And many of the patients were, at that point, in the end stage of cancer, because that’s why they were hospitalized. So it would be either end-stage cancer or neurologic impairment, as the largest group, so I saw what end-stage cancer was like and that experience, you know?

Tacey Ann Rosolowski, PhD
[00:15:52]
So tell me about the next step to medical school.

Ethan Dmitrovsky, MD
[00:15:55]
Yeah, I was going to just tell you one other points is —
Tacey Ann Rosolowski, PhD
[00:15:58]
Sure.

Ethan Dmitrovsky, MD
[00:15:59]
— there’s a very famous book by [Stewart] Alsop — A-L-S-O-P — called Stay of Execution. And during this time — I’m an avid reader — I read the book by Alsop. I’m just looking — I think they’re two brothers. Do you know the famous Alsop brothers? They were greatly renowned reporters and commentators in the 1960s and ‘70s, and I think it was Stewart Alsop that had a — I’m just looking up his book now.

Tacey Ann Rosolowski, PhD
[00:16:35]
What did we do without our Google-searching phones.

Ethan Dmitrovsky, MD
[00:16:38]
Yeah, so he was a renowned commentator, journalist, and he wrote a book about his experience. So the two brothers were Joseph and Stewart Alsop, and I’m just trying to see which one wrote the book. So he was diagnosed with a very rare form of leukemia that really befuddled diagnosticians. So he was referred to the National Institutes of Health to sort out — divine the precise nature of his leukemia, and ultimately, it became one of the early recognized cases of a syndrome called refractory anemia of excess blasts. He was cared for by John Glick at the National Cancer Institute. And the reason that I mention this is because that book had a large and positive effect on me, because the book told the story of how scientific discoveries helped this renowned journalist, who then chronicled his illness.

Tacey Ann Rosolowski, PhD
[00:18:05]
I can search it later.

Ethan Dmitrovsky, MD
[00:18:06]
Could you? Because it just —

Tacey Ann Rosolowski, PhD
[00:18:07]
Sure, no problem.

Ethan Dmitrovsky, MD
[00:18:08]
— has the brothers’ names and the book, but it doesn’t say who —
Tacey Ann Rosolowski, PhD
[00:18:11]
Who wrote it.

Ethan Dmitrovsky, MD
[00:18:11]
— who wrote it, yeah.

Tacey Ann Rosolowski, PhD
[00:18:13]
I’ll check it later, because as you noticed, I’m taking a lot of notes.

Ethan Dmitrovsky, MD
[00:18:15]
And so it was in college that I read that book, and it had a really — it really intrigued me that there could be a hospital that was devoted to diagnoses that befuddled regular doctors and that needed the specialized expertise that was available. So actually, I decided that during medical school, I would do a rotation at the National Cancer Institute, which I did do. And to get ahead, I ultimately did my fellowship there, because the book just was such a — kind of a beacon that attracted me, and that was a great experience, too.
Chapter 03
Medical School and a Life-Changing Experience as a Physician Volunteer Near the Cambodia-Thailand Border

A: Professional Path;

Story 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;

Ethan Dmitrovsky, MD
[00:18:15]+
So after graduating from Harvard with this dual experience as — clinical experience and scientific experience — I was open-minded to having a career in medicine, with the idea there might be an opportunity for me to also have science as an aspect of my career, although I entered medical school with the strong thought that I would become a private doctor in general medicine. That was my plan. And I went to Cornell Medical School, as I mentioned, which was renamed — I guess about fifteen years ago — the Weill Cornell Medical School. I think “Weill” is W-E-I-L-L. I’m not sure of the spelling.

Tacey Ann Rosolowski, PhD
[00:19:55]
I think it’s W-E-I-L.

Ethan Dmitrovsky, MD
[00:19:57]
Yeah, for Sandy Weill — it was the family who named it, he and his wife. So Cornell Medical School, and that’s in New York City, as you know. It’s on the East Side, although — on York Avenue in Manhattan, although obviously, the university is in Ithaca. The medical school is in New York City, and it’s across the street from Memorial Sloan Kettering Cancer Center and next door to Rockefeller University. So this idea that I had when I went to medical school of, “Wouldn’t it be interesting to be a practicing doctor, but keep an open mind about two other topics?” One is that maybe tackling — for my career’s focus — cancer is a problem, because it was a daunting medical problem, obviously, and because I felt there would be great progress that would be made. It seemed the juxtaposition of having Rockefeller University on one side of Cornell, and across the street — which was one of the teaching hospitals — Memorial Sloan Kettering. I knew I would have clinical and potentially science experience.

Tacey Ann Rosolowski, PhD
[00:21:09]
Was anybody talk— no one had articulated the phrase “physician scientist” at the time. That was still on the horizon.
Ethan Dmitrovsky, MD
[00:21:14]
No, and many people — I have a story similar to tell that I’m going to tell you in a second. So I enjoyed medical school. I did do research one summer, but it wasn’t as in-depth an experience as what I had in college, because it was just a brief summer experience. During another — at the very end of medical school, I did a rotation at the National Cancer Institute. They had a medical student exchange program, and I really was drawn to the idea of — for my fellowship, to go there. And just before I finished medical school, I volunteered to work for the International Rescue Committee. They had — after the Vietnam War, you know about the terrible holocaust in Cambodia. You may recall that President Carter had encouraged physicians to volunteer to work in these camps that were caring for these really tragic clinical cases of young children with kwashiorkor, which is a protein wasting syndrome, and many of the illnesses that went untreated for the five years of the Khmer regime. So I volunteered to do that and worked along the Cambodian-Thai border, and if you ever saw the movie The Killing Fields, that was actually the camp that I worked in.

Tacey Ann Rosolowski, PhD
[00:23:06]
Really?

Ethan Dmitrovsky, MD
[00:23:07]
Yeah, and so I cared for — I was in — the camp opened in the end of November, and early December, I began volunteering there.

Tacey Ann Rosolowski, PhD
[00:23:21]
How long were you there?

Ethan Dmitrovsky, MD
[00:23:23]
So probably, I guess, about three months. I’m not sure of the exact time. My — I think it was two or four months. I don’t really remember. But that had a huge effect on me, because this notion of a career of service was solidified with that experience, and I had decided that whatever I did in my career, helping others who were in particular need was something that I wanted to do.

Tacey Ann Rosolowski, PhD
[00:23:54]
Tell me about some key experiences you had during that three months. It must have been so intense.
**Ethan Dmitrovsky, MD**

[00:23:58]

So I have seen illnesses that most western doctors never see. So malaria, obviously, we frequently diagnosed, and there are many types of malaria. Dengue fever, which, most fortunately, has not affected — is not a disease that most American doctors have diagnosed. I’ve diagnosed leprosy, beriberi — which is a thiamine deficiency that causes cardiomyopathy that’s reversible, and the few causes are reversible. And we took care of a lot of wounded, and because the Vietnamese were just three kilometers away, and there were people who had stepped on landmines and other terrible things and had suffered gunshot wounds, and so we cared for them. And indeed, I even had the experience of triage, and you know what that is. So triage is where you — triage, in the military tradition for medicine, is that those with head injuries you don’t care for, because they can’t be helped, and that you take care of visceral injuries. So I had that experience, too.

**Tacey Ann Rosolowski, PhD**

[00:25:20]

So you really had to make decisions on the spot about living and dying.

**Ethan Dmitrovsky, MD**

[00:25:24]

And so I was in the Cornell emergency room that — we were set up to be with a few other groups, so we were in charge of the emergency services for the International Rescue Committee, and so everyone would come through the emergency room first, which gave incredible experience in terms of infectious disease, pneumonias of all stripe, many meningeal infections. And one evening, I actually diagnosed a case of cholera.

**Tacey Ann Rosolowski, PhD**

[00:25:57]

Wow.

**Ethan Dmitrovsky, MD**

[00:25:58]

And so there’s — you may not know this, but there’s a very famous — what’s called a “cholera bed,” because of the — the illness, you know, it’s highly infectious. The patients can infect the whole camp, and so we were understandably extraordinarily concerned when we made this diagnosis, and fortunately, we were able to prevent an outbreak. So it was just a remarkable experience, and which — I am grateful to have had that experience, and quite notably, I was the invited graduation speaker this past June for — the camp that I worked in is called Khao-I-Dang. It’s closed now, but that’s what it was called — K-H-A-O hyphen I hyphen Dang, D-A-N-G — in a town called Aranyaprathet. Aranyaprathet is a town right across the border from Cambodia in Thailand, so there was a very large — that was the largest Khmer city outside of Phnom Penh in the world at that point. I don’t recall the — it was, I think, over 100,000 people at some point, so very large. So I was the graduation speaker, and as we were shaking hands for the graduates coming through, one of the students actually was in the camp.
Tacey Ann Rosolowski, PhD  
[00:27:41]  
Oh my gosh.

Ethan Dmitrovsky, MD  
[00:27:43]  
And I had talked about this experience that I had for the graduation, and he told me that he wanted to thank me for what I did. And you know, I may very well have cared for him at some point. It was just quite — quite a moment. So this notion of a commitment to service and a commitment to particularly helping people with very difficult clinical problems was what I took fresh in my mind in my decision of what discipline to choose, and I chose hematology-oncology for that reason. And also, there was a tremendous sense that progress was going to be made, which turned out to be the case. It really — true progress has been made.

From there, I wanted to continue having experience with the care of cancer patients, so I chose for my residency that combined internal medicine residency and internship program at New York Hospital, which is the major teaching hospital for Cornell Medical School and Sloan Kettering — and Memorial Sloan Kettering. So over a three-year residency, I received a lot of practical experience of caring for cancer patients and found that I enjoyed caring for cancer patients, because the ability to improve their conditions — both physically and emotionally — was great. And in particular, caring for people who had terminal disease, I thought that it was possible to be particularly compassionate and saw how beneficial that was to the patients and the families. So based on that experience, I decided to devote myself to oncology as a career, and then, in part because of the Alsop book that had always intrigued me, I did my fellowship at the National Cancer Institute in Bethesda.
Chapter 04  
A Fellowship and a Risky and Successful Study of Cell Differentiation

A: The Researcher;

Story Codes
A: The Researcher;
C: Discovery and Success;
A: Overview;
A: Definitions, Explanations, Translations;
D: On Research and Researchers;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;

Ethan Dmitrovsky, MD

[00:27:43]+

[So based on that experience, I decided to devote myself to oncology as a career, and then, in part because of the Alsop book that had always intrigued me, I did my fellowship at the National Cancer Institute in Bethesda.] I still felt that I would probably spend my time as a clinician full-time and didn’t feel I had innate skills as a researcher, because it doesn’t come naturally or easily to anyone. And I knew that it would — in order to be versed, in order to see whether I would have the skills — I knew it would take a number of years to become trained. So what I’m saying is I’ve fully trained as a physician, and then say, “Well, I’ll try to devote an intensive period of my career to learn about science and to see if I would have the ability to make contributions in that space.” And so after a very intensive clinical year, you are given two years of what’s called protected time — very focused time in the laboratory. And since I felt that I would most likely become a practicing doctor, I was willing to take on ambitious project, because I felt that, since I was going to go into practice anyway, it wouldn’t be that much of a risk for me.

So the project that I took on — I didn’t know at the time — was a project that had been offered to every postdoctoral fellow in the group, and the greater group was, oh, probably thirty-five people. And I was not told that everyone rejected the project. It’s a truthful story. It’s not a story, I guess. It’s the truth. So the project, in a nutshell, was — there was a prevailing view, a hypothesis — I came of age, for want of a better word, as a physician- and scientist-in-training right when oncogenes were discovered. And one of the early hypotheses of oncogenes was that one cancer would — each cancer would have a different oncogene, or cancer-causing gene, and so this is even before tumor suppressors were discovered. People were interrogating the functions of oncogenes, and so I was asked to study a very well-described model of a leukemic differentiation — leukemic cell differentiation — where, when a drug called dimethyl sulfoxide, also known as DMSO, was given in culture to these mouse erythroleukemia cells, startlingly, a discovery made by Charlotte Friend — then at Mount Sinai — she found that these white leukemic cells became red because they produced hemoglobin, meaning the undifferentiated erythroid cells became mature and differentiated, so you could actually see a white pellet become red. And intriguingly, one of the earliest oncogenes ever discovered called the c-Myc — C hyphen M-Y-C oncogene — precipitously declines after DMSO treatment within a few minutes, and then rapidly rose. And there was a theory that that might be a signal to cause the differentiation. So the idea was to reconstitute the expression of the c-
Myc oncogene, prevent the fall, and then treat with DMSO. And would the white cells remain white, or would they become red? That is, would the non-hemoglobin-producing cells be prevented from becoming hemoglobin-producing? And if it were a signal, then that would be the hypothesis.

And so the reason it was a challenging project is that these were so-called “floating cells.” They didn’t adhere to the tissue culture plates, and the technology to transfect floating cells is only evolving at that point, and it turned out it was very difficult to transfect. So there was a new technology that was called electroporation — electro, E-L-E-C-T-R-O, poration, P-O-R-A-T-I-O-N — and also other forms of transfection. That is a process of taking DNA and putting it into recipient cells, in this case, the c-Myc oncogene. So we did do the experiment, and it did succeed, and it did block differentiation. The white pellets stayed white. And we, since this, at this point, was a very — no pun intended — visible result, we decided to send it to Nature, and it was accepted. So that was my second project in science. I had a first authorship in the journal Nature, which was a really interesting experience for a lot of reasons. One is that when it came out in the journal Nature, I learned there were two other groups in the world with the exact same result, and all of these papers were published together. And we didn’t know about each other, and all had the same result. Oftentimes — this was a notable question that many groups were looking at, and the fact that all three groups came with the same result validated the idea that there was a signal. And you would think, with that experience, that it would give you confidence, but it actually did not, because the idea that you could come up with a reasonably attractive hypothesis, conduct the experiment, and have it succeed, and not know that there are multiple groups — and we also found out later that there were multiple groups that tried to do the experiment but were not successful — that you would sort of gain confidence. “Oh, you can do this, while others couldn’t.” Actually, that was not my reaction. My reaction was, “It was all serendipity, and it was just being in the right place at the right time.”
Chapter 05
A Faculty Position and a New Laboratory to Study the Role of Retinoids in Leukemic Differentiation
A: The Researcher;

Story Codes
A: Overview;
A: Definitions, Explanations, Translations;
A: The Researcher;
C: Discovery and Success;
D: On Research and Researchers;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;

Ethan Dmitrovsky, MD
[00:37:30]+
But the result was big enough as a result that I got my first faculty position because of it, at Sloan Kettering, where I had trained. So I joined the faculty there. And the tradition at that point — which is a different tradition today — was that you should stop everything that you are doing as a post-doctoral fellow. Obviously, I had published other papers during my fellowship, but this was the major observation that I made. The tradition was to stop everything that you were doing and to move into a completely different project that you would take on as your career-beginning project, so I subscribed to that tradition. So I end up staying at the NIH for about — the National Cancer Institute — for roughly four years, received three years of in-depth laboratory training, and then joined the faculty at Sloan Kettering. And because of this drug, DMSO, having this extraordinary ability to cause cancer cells to mature, that was the idea that I wanted to begin my career on: could you cause cancer cells to mature? And as they mature, they die, because they lose the unregulated capacity to grow. As you go from the white pellet to a red, the white cells have continuous ability to replicate, but the red cells, because they’re specialized, have limited ability. In a sense, differentiation is repressing — reducing the ability of these malignant cells to be malignant.

So this was a big idea when I began my laboratory, but DMSO was a drug. It could be given to people and can be given to people, but it is — its effects are seen at what’s called millimolar concentrations, and I had a feeling that would never be practical in patients. And there was a drug that had been identified — a “drug” because it was a natural product. It was a vitamin A derivative called retinoic acid. Retinoic acid, unlike DMSO, worked at a thousandfold lower level, so it — what’s called “micromolar” concentrations. And I set out to build my nascent laboratory around studying retinoic acid for two reasons. One is I felt that a natural product, a vitamin — a vitamin A derivative, that’s what retinoids are — it’s a class of molecules that share a structure with vitamin A — would be able, because it is a natural product, to be given to patients and to be tolerable. And secondly, I felt, because it was working at micromolar levels, that there must a receptor. So just as I was opening up my laboratory, within a couple of months — is my memory — just within a few months, serendipity struck, and the very receptors for this drug, retinoic acid, were discovered and were published in back-to-back papers in the journal Nature.
by a French group led by Pierre Chambon — C-H-A-M-B-O-N — and an American group run by Ron Evans, one at the Pasteur Institute, and the other at the Salk Institute. And that was validating, because the idea seemed to have some value.

So I began studying how retinoids could cause germ cell tumors — testicular cancers — in culture to mature. And they do cause these cells to mature. And these — the reason I studied this model was because human testicular cancer has a spontaneous ability to mature in patients, and it’s called teratoma formation — T-E-R-A-T-O-M-A. So embryonal cancers — E-M-B-R-Y-O-N-A-L — can spontaneously cause differentiation to a structure, a histologic structure called teratoma that has all three germ layers of tissues present. So you can find teeth in teratomas. You can find brain. You can find muscle. And I felt that if you could just give the right signal, you could cause these cells to mature in people. At the same time, serendipity struck, and we heard about a study in China showing that the very drug I was studying — called all-trans-retinoic acid — could cause complete remission in a rare leukemia. Remember, I was studying leukemia at the National Cancer Institute. So we set out to move this work into the clinic in the area of this rare leukemia called acute promyelocytic — P-R-O-M-Y-E-L-O-C-Y-T-I-C — leukemia, APL. So we lead the first American trial that actually showed that this drug worked, and I was the last author on that paper that we published in the New England Journal of Medicine. And unbelievably, we found and reported in the study that every patient who responded to this drug expressed an abnormal protein for the very receptor that Ron Evans and Pierre Chambon had found called the retinoic acid alpha receptor. Then, I got a call one day from Ron Evans, to ask if we could collaborate in cloning this, and we actually cloned the receptor and published that in Cell.

Tacey Ann Rosolowski, PhD
[00:44:35]
Wow.

Ethan Dmitrovsky, MD
[00:44:37]
And unbelievably, if you have this receptor, you always respond to the drug, retinoic acid. A minority of patients were cured of APL with chemotherapy, but when you combine retinoic-acid-based therapy with chemotherapy, the vast majority of patients are cured. So we cloned the receptor, and then my lab developed and patented the genetic test for this abnormal receptor that’s now widely used to diagnose this cancer — this leukemia and to monitor treatment response. So when you’re in remission, you can’t detect the receptor anymore, because all the cancer cells are gone. And then, we published the first transgenic model in mice that expressed this abnormal protein. So here, the story becomes quite extraordinary to tell because of this serendipitous nature. So APL has a diagnostic chromosomal translocation, and extraordinarily, that translocation is exactly — breaks up the retinoic acid receptor alpha gene. So here, you have a genetic lesion that’s also a target of therapy, and so this is one of the early examples of targeted therapy. So when we cloned this translocation product from chromosome 15 and 17, we uncovered a new gene product that we called PML.
And after several years of study, I did a literature search, cueing in the word “retinoic acid” and the word “APL,” and there are just a bit under 2,000 cases a year in the United States. Remember, I said from a minority, now, to a majority of patients are cured, and there are other drugs that are now combined with retinoic acid, like arsenic trioxide. So this therapy has even moved into the oral therapy of both retinoic acid and arsenic trioxide, or orally active agents. So I cued in the word “APL” and the word “retinoic acid.” I found that there were more papers published on this subject than there were annual cases in the United States. So when I did this experiment — if you will — I thought it was time for me to broaden my reach, because I was sure that any discoveries that would be made, there were enough people studying it. I wouldn’t have to worry.
Chapter 06
Shifting Focus to Lung Cancer
A: The Researcher;

Story Codes
A: Overview;
A: Definitions, Explanations, Translations;
A: The Researcher;
C: Discovery and Success;
D: On Research and Researchers;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;

Ethan Dmitrovsky, MD
[00:47:00]+
So we asked the question in my group, “Is there something we could learn from this experience that we could move into a more common cancer that was a very challenging problem?” The same idea that when we started this differentiation project — and it turned out that in patients with APL, the cells actually matured as they did in the laboratory, so it validated this idea of differentiation-based therapy. And what we found is that when we treated APL cells with retinoic acid, something quite unexpected occurred. So it turns out that retinoic acid causes the destruction of this translocation product, this protein that is called PML/RAR alpha for the fusion product in chromosomes 15 and 17. It was really surprising. So retinoic acid was destroying the cancer-causing protein, PML/RAR alpha, and I thought that that was something that we could move forward — not that it destroyed this protein — that maybe the drug, retinoic acid, was causing a more general protein destruction program to be produced. Am I explaining that clearly?

Tacey Ann Rosolowski, PhD
[00:49:39]
Yes. It’s very clear, thank you.

Ethan Dmitrovsky, MD
[00:49:41]
So we had, sort of, two ideas. One was: what could we take from the work that we had done on APL, and then what could we study? So I had a colleague who encouraged me to move into lung cancer because it’s the most common cancer for — cause of cancer death for both men and women. And I was drawn to the fact that this was not only a mens’ health issue, but a women’s health issue, and it wasn’t appreciated at that time that actually, it disproportionately causes the death of women with lung cancer more than any other cancer that affects women. More women are diagnosed with breast cancer, but far more, sadly, pass away from lung cancer. So I thought that if we were going to have an effect on lung cancer, the greatest opportunity was in the earliest forms of lung cancer. So the idea was that we could maybe use this drug, retinoic acid, to prevent the lung cancers from forming in the first place, and that was a big idea that has not stood the test of time for a variety of reasons that I’ll come to in a minute.
So we did a very simple experiment that turned out to be highly informative, and it was a paper that we published in the *Proceedings of the National Academy of Sciences*. We took human lung epithelial cells that had been immortalized with — it’s called the T-antigen. So they were not malignant, but they could proliferate in culture. And we actually applied to those cells the very carcinogens that cause lung cancer, so we applied cigarette smoke condensate, or the particular carcinogen from tobacco called nitrosamines. Independently, we did this. And we found that when we applied this carcinogen, we could take these immortalized cells and make them malignant. And how it made them malignant was the question we were asking, but they acquired the ability to form tumors in recipient mice. They grow in this anchorage-independent manner. They would grow unattached to tissue culture plates — what’s called soft agar growth. These are, in the laboratory definitions, requirements for the malignant state. But we then pre-treated with the drug, retinoic acid, and we actually could prevent this malignant conversion.

So we asked, “Is there a mechanism that we could find?” And we actually found one that we published in the journal *PNAS*. We found that retinoic acid was causing the destruction of another protein, so it was actually causing a destruction of the very cell cycle proteins that regulated the G1 phase of the cell cycle. These are cyclin E and cyclin D. And it was doing so through a similar protein destruction pathway as we found in APL, called the proteasome degradation pathway. Over a decade, we studied in great detail the mechanisms involved. We found there was a proteasome degradation path that was involved, and we found an alternative degradation pathway that was involved. And because I’m a physician-scientist, and my lab is about moving work from the bench into the bedside, I felt very quickly that this was a — to use the vernacular — a druggable target.

So now, here’s where the story becomes very interesting. I wasn’t alone in this thought, and in fact, there were very large clinical trials that were underway, of which I wrote the accompanying editorials. And they all did not work. They did not work because the clinical trialists, when the work began, didn’t know that the receptor for retinoic acid that controls the effects of retinoic acid working — in everything that I described you, the receptors were intact. But when it became a malignant lung cancer, the very receptor that the drug, retinoic acid, works through was the second retinoic receptor, not RAR-α, but RAR-β — beta for the second — was silenced in lung cancers. And it wouldn’t possibly work to give the drug, retinoic acid, because the receptor was silenced. And in my mind, it’s such a critical pathway. The cancer cells become cancerous because they silence the pathway. But this protein, retinoic acid receptor beta, forms what’s called a heterodimer with a related protein called the retinoid X receptors. And the retinoid X receptors and the RAR receptors sit together, and they sit — they complex, and they sit on DNA. So if you silence one partner, you could still activate the other. And after these studies — again, this is a series of serendipitous events — showed that there wasn’t activity, at the same time, a receptor for the retinoid X — a drug for the retinoid X receptor pathway became discovered. And we had the idea we could bypass the block by giving the retinoid X receptor drug, and we showed in the lab it would actually destroy the same cell cycle proteins.

And at that point, I was convinced that we should conduct clinical trials to show where that works. Over ten years, I published five clinical trials testing this idea, beginning in what’s called phase 0 trials, that is to ask those — in the perioperative setting, we would treat patients before and immediately after. Ten days before surgery, we would give them this rexinoid RXR agonist. And we showed, within ten days, that the very pathway that we had found caused the destruction in cells in the lab caused the destruction of
the same — destruction of the cell cycle proteins in the lab also did the same in patients’ tumors. And then, we found a separate pathway involving the epidermal growth factor receptor, and we had inhibitors to that pathway, small molecule inhibitors that would also repress — reduce the expression of these proteins, but through a different pathway. So the first pathway that we found destroyed the proteins through this proteasome degradation pathway, and then we found a second one that repressed the same proteins through a different pathway, and our idea was to combine these two drugs together.

So over ten years, we methodically went through and showed, first, the pathways worked alone with two drugs, just as we expected, in the post-treatment versus pre-treatment tumors. Then, we ran — those were phase 0 trials. We ran a phase 1 study combining these two drugs together and published that in the Journal of Clinical Oncology, and all this work were separate publications. And we found, actually, in heavily pretreated patients in a phase 1 study, that there was a survival advantage for the patients. We then launched a phase 2 study and what’s called the phase 0 trial, where we looked at pre- versus post-treatments, looking at the effects of these two drugs, the EGFR tyrosine kinase inhibitors — EGFR TKI — and the rexinoid. And then, in a large pha— ten patients who were treated in this window of opportunity phase 0 trial, and then we did a phase 2 trial at the same point, and we found a survival advantage. We actually found activity in a form of lung cancer that is highly resistant to current therapy, those that harbored what’s called RAS mutations.

So we had heavily pretreated patients. All of these patients were, by their very nature — had sadly had other therapies fail them, and the median survival, from historical experience, would have been about six — four to six — sorry, about four months. And we actually had people who survived one, two, three, and four years. So we shared those data — I was still at Dar— sorry, at that point, I had moved from Sloan Kettering to Dartmouth, to become chair of the pharmacology department. And I was invited by the president of Dartmouth to do a term as the interim dean of the medical school, so I did that while I was at Dartmouth. So this work began at Sloan Kettering, and all the clinical work was done at Dartmouth. So I shared these data with colleagues at MD Anderson, because they were actually running the same trial, based on our work. And the BATTLE trial, which is very well known — what’s less well known is that the most active arm in the BATTLE trial was the trial that we developed.

*Tacey Ann Rosolowski, PhD*

[01:00:03]

How interesting, yeah.
Ethan Dmitrovsky, MD

[01:00:04]

And so I shared these results, before publication, with the BATTLE trial team, and they had the same results. So here’s an example of moving from the lab to the clinic, and then having — and we published our papers in two different journals, but within a few weeks of each other. So what we’re hoping to do now is to find an even better rexinoid that has even better pharmacologic properties and to see if we can develop this as a treatment for a non-small cell lung cancer patients. In my lab, we have an iterative approach, so we’re always moving from the bench to the bedside and back again. And along the way, I thought that one of the key experiments that we need to do was to see whether, if we deregulated these cell cycle proteins by causing them to be abnormally expressed in a lung — in a way that prevented their destruction or in their wild-type state, I wondered whether we could cause the lung cancers to form in mice. So actually, we did that experiment, and that’s what we found, and we published that in the Proceedings of the National Academy of Sciences. So we make these models available to any investigator who might want to work with them.
Chapter 07

Coming to MD Anderson to Have a Broader Impact on Health

A: Joining MD Anderson/Coming to Texas

Story Codes
A: Joining MD Anderson;
A: Professional Path;
A: Influences from People and Life Experiences;
A: Career and Accomplishments;
B: Institutional Mission and Values;
C: Patients, Treatment, Survivors;

Ethan Dmitrovsky, MD
[01:01:00]+

So I was at Dartmouth for fifteen years. I was at Sloan Kettering on the faculty for nearly twelve years, and I’ve been a practicing cancer doc for my whole — doctor — for my whole career, and an NIH-funded scientist for my career. And I’ve had the great fortune of being able to run a lab and also be a practicing doctor. And because — I think, in part, because I trained at the National Cancer Institute, I was invited to — because I was familiar with the community — to become a member of the Board of Scientific Counselors at the National Cancer Institute. So these are five-year terms, and shortly after my first year, they asked me to chair the board, which I did for, I guess, three or three and a half years. As I was finishing my term, I had the experience of family members diagnosed with cancer and was very involved in their care, as you would not be surprised to learn. That was an experience that was very different than my years as a practicing cancer doc or my years as a researcher, and I saw firsthand how devastating a cancer diagnosis is. I finished my term on the Board of Scientific Counselors at the NCI, and these are very demanding responsibilities, so I was going to the NCI, on occasion, several times a month. So when I finished my term and then had this experience, I was open-minded to consider the next phase of my career, trying to take what I learned — and sadly learned from this personal experience — to apply to the next phase of my career.

The science projects that I described to you, they sound — they’re very quick to tell, but they each take about a decade, so I had just finished these five clinical trials. I was ready to launch a new program that might take another decade, and I had this life experience, and I thought that I had had administrative experience on a board and as an interim dean of the medical school at Dartmouth. I thought that I might be able to make contributions more broadly, by serving a whole community, and that’s when I was approached by MD Anderson, by coincidence. And it seemed like that was a good goal, to develop this theme that I’ve had in my career of trying to do whatever I can to devote my energies in service and to do meaningful work — meaningful for communities that really need to have their needs addressed, like the cancer population. So I decided to come to MD Anderson.

Tacey Ann Rosolowski, PhD
[01:05:22]
Who was it that first contact you, and how did those conversations evolve?
**Ethan Dmitrovsky, MD**  
[01:05:29]  
Well, Dr. DePinho and I have known each other for many years. By chance, we’ve never been collaborators, but we — by chance, we served on many committees together over, probably, more than a decade. And we also served on the Abbott Scientific Advisory Board together, for a number of years. So we served on the program committee for AACR. We had a number of interactions that we all very positive over the years, and so we knew each other pretty well. I really admired what Ron DePinho had sought to do in this position, as our president, to tangibly improve the lot of cancer sufferers, to really do what is our mission, to one day, hopefully, confine cancer to history. Knowing Ron, I thought that he would make great strides in that domain, that area. So the institution had charged a search firm to reach out to people, and that was the first contact I had, but then quickly, Dr. DePinho and I had professional interactions. We knew each other very well, so it was just the initial reach out, but then after that, most of the interactions were directly with the leadership here. And I feel a deep sense of commitment to try to advance the mission of MD Anderson, to, as we say, “Make cancer history,” or to state it another way, to confine cancer to history. And the idea of waking up every day and using your energies, your skills, your experiences to bear, to try to reduce the cancer burden is a worthy way to spend your time.

And this idea, encapsulated in the moon shots initiative, has, as its goal, to tangibly improve the care of cancer, to bring tomorrow’s treatments to patients today, and to expedite the progress, making strides against the cancer problem, and that’s surely a worthy goal. And to be part of that —

**Tacey Ann Rosolowski, PhD**  
[01:08:20]  
Would you like me to pause for just a moment?

**Ethan Dmitrovsky, MD**  
[01:08:25]  
Just for a second.

**Tacey Ann Rosolowski, PhD**  
[01:08:26]  
Sure.

[The recorder is paused]
Chapter 08
Views on MD Anderson’s 10-Year Strategic Plan and the Role of the Provost
B: Building the Institution;

Story Codes
B: Institutional Processes;
B: MD Anderson Culture;
B: Growth and/or Change;
C: Understanding the Institution;
C: The Institution and Finances;
A: The Administrator;

Tacey Ann Rosolowski, PhD
[01:08:27]
There we go.

Ethan Dmitrovsky, MD
[01:08:28]
So thank you for pausing for a sec.

Tacey Ann Rosolowski, PhD
[01:08:30]
No problem. No problem. Well, I know that there was a strategic plan that was developed for the next ten years of the institution, and I wonder if you could talk to me about what the scope of that is and how you are setting in place some very particular strategies to make those changes happen?

Ethan Dmitrovsky, MD
[01:08:49]
The fact that we are having a strategic plan is a wonderful opportunity for MD Anderson, because in a sense, it allows us to, as a community, come together and say, “What do we want to strive to achieve together, as a community, over roughly the next decade or more?” It requires us to take a clear-eyed view — maybe even an accounting, in a sense — of the considerable resources that are present today at MD Anderson. And when you think about this, even an institution with the reach of MD Anderson, with over 20,000 employees, with our institution being the largest cancer center surely in America, that even an institution with the reach and breadth — extraordinary reach and breadth — of MD Anderson still can’t doing everything. So the recognition that, in today’s moment of history, we’ve having, essentially, to look at the past of MD Anderson — there has to be a clear-eyed view that even an institution with as broad a reach as MD Anderson can’t do everything, so that recognition does lead us to make decisions about where we want to focus our considerable energies, talents, and resources. And obviously, our community itself represents our greatest resource, not the beautiful buildings, but who occupies this place. So we want to engage our community very broadly to ask this fundamental question: what do we want to strive to become?
And so our strategic planning process, which has been a reflective process — it has been a very helpful process. It has broadly engaged our community — and I define our community not just of faculty — and all of our community has been engaged, and all of our stakeholders, too. So we want to also look, in a clear-eyed way, at areas that we can perform better, in the domain of the patient experience. We want to look at how we can improve the provider experience — the people who serve our patients every day. We want to consider the science that enables us to do all that we do today and will surely be able to do even more so to help our patients in the future, and to look at our administrative systems and our support structures. These are some of the topics — of which there are many others — that are being looked at. So there’s a wonderful moment in an institution’s history where you can have a full accounting of where you are and where you want to be, and you can then say, “Well, if we want to go in this direction as a community,” and that’s where we’re having our deliberations, “Are there additional investments that we need to make? And if those investments are going to be made in a strategic way, will we then decide the areas that we will no longer invest in or diminish our investments?”

So most institutions are really good at creating, and they’re less good at un-creating. So a strategic planning process that is really empowered is one that allows you to do both, at least to look at both possibility and, at the same time, recognize there are many process improvements that we do every day that are not of a strategic nature, and not all things important are strategic. And there are many day-to-day process improvements that will continue to occur. A good example is that it turns out that our dining services receive very high marks by our patients, so that’s something that has continuously improved, but it wouldn’t necessarily be of a strategic nature. So there are many things that we do every day that we continuously improve, but this allows us to look ahead, and it’s a rare opportunity that an institution has, and we should take full advantage of this opportunity.

Tacey Ann Rosolowski, PhD
[01:14:19]
So tell me a little bit about — I mean, your area, obviously, is working with the research portfolio and the research culture, and then, of course, faculty. So tell me about your vision and your philosophy for what the accounting has revealed right now, and where you think MD Anderson is going.

Ethan Dmitrovsky, MD
[01:14:41]
Well, I would say that, although you’ve defined the scope of the provost’s office very appropriately, I’d like to step back and say that one of the ideas that I tried to bring with my arrival is a sense of partnership among all parts of the institution. So Tom Buchholz is our physician-in-chief, and I, as our provost, worked side-by-side on many topics of shared responsibility. So rather than compartmentalize — as you appropriately had said — we actually choose to see where our portfolios overlap, so we make many, many decisions together, and we are together many times a day — four or five times a day. And the idea that — no one part of the institution exists in isolation, and so what I’ve tried to bring is this notion of partnership among the different parts of the organization, because you can’t compartmentalize. They’re too intertwined.
So with that said, this notion of partnership is one that is helpful — I would submit — in a complex organization of over 20,000 people and roughly 1,700 faculty members. So what my view is — I’ve tried to consider where we can maximize the benefit for the largest numbers of individuals that we want to positively support — not positively support, that we want to positively affect. So all of the initiatives that we’ve done have really been not so separate from the clinical enterprise. For instance, we’ve made a sizable investment in making, on a pilot basis, genetic testing of tumors — patients’ cancers — free to patients on trials. So this is, in a sense, maybe a research question, but in another sense, it’s a clinical delivery question. We’ve done this on a pilot basis, so that we can learn from the investments that are made and then apply that knowledge in the next phase of investments. So I wanted to kind of put that out there as a point of conversation.
Chapter 09
Creating a New Way of Conducting Research and Caring for Patients in a Changing Environment
B: Building the Institution;

Story Codes
D: On Research and Researchers;
D: Understanding Cancer, the History of Science, Cancer Research;
B: Building/Transforming the Institution;
C: Research, Care, and Education;
B: Multi-disciplinary Approaches;
D: The History of Health Care, Patient Care;
D: On the Nature of Institutions;
D: Business of Research;
D: Fiscal Realities in Healthcare;
B: Institutional Processes;
B: MD Anderson Culture;
B: Growth and/or Change;
C: Understanding the Institution;
C: The Institution and Finances;
A: The Administrator;

Ethan Dmitrovsky, MD
[01:17:00]+
So one of the observations that I would suggest has value to consider is — the nature of the scientific endeavors, today, build on extraordinarily important, decisive, discovery science that is finding fundamental pathways that control the growth or differentiation or immunologic state of human cancers has taken many decades of work, ever since the National Cancer Act was signed by President Nixon. So we are the beneficiaries of decades of discovery science, and yet, there’s so much we still need to discover. But those discoveries have begun to reveal tractable — potentially tractable targets for cancer therapeutics. And as we must surely have discovery science continue, this opens up another way of conducting science, and that would be using interdisciplinary teams, so bringing people together from different disciplines, working on common problems. At the same time, I would submit that we’re at an era not only of team science, but where discoveries will be made in a very interesting area, and that will be in the area between disciplines, where the distinction between fields becomes blurred. So when you ask the question about, strategically, what kind of scholarship, what kind of educational model we would want, I think there has to be a broad understanding that the nature of science may actually be changing.

Tacey Ann Rosolowski, PhD
[01:19:54]
And the challenges of transforming an institution to be aligned with that larger environment, too, seems like the challenge.
Ethan Dmitrovsky, MD
[01:20:06]
Yes, and then if I could just continue this line —

Tacey Ann Rosolowski, PhD
[01:20:09]
Sure.

Ethan Dmitrovsky, MD
[01:20:10]
— of reasoning, you also need to educate the next generation of contributors, who are able to act decisively in this changing environment, where having skills of being able to communicate effectively with other investigators from different traditions — areas of scholarship will become increasingly important skills. And having the ability to take full advantage of what’s called “big data,” all the information that we have acquired means that we perhaps need to create new disciplines. So all of this opportunity is occurring at the time of uncertainty regarding the Affordable Care Act — so-called Obamacare. We are still learning firsthand what an American medicine delivery system will look like, and in particular, what role academic medical centers will play, and especially quaternary cancer centers like MD Anderson. There’s an uncertainty about what it will look like, and at the same time, we have a flat NIH budget, which means the purchasing power is actually going down considerably, when you consider that there has been no accommodation of cost of living increases for faculty, inflationary costs for equipment — all that has been going on. And it is even said that perhaps we have lost the purchasing power of the doubling of the NIH budget in the years since the doubling ended, because a flat budget means that you’re falling behind.

So we need to recognize these truths, and at the same time, we need to consider how we can respond to this changing biomedical environment. So with all that said, and I wanted to say is that one of the areas that is particularly important for us to consider is the next generation. We have made substantial investments in supporting our junior faculty. One is, we created the R. Lee Clark Fellowship Program — R. Lee Clark Program, which provides $100,000 of resources to, in the inaugural year, sixteen new Clark fellows, for them to use as they see fit in one of three areas. This was a competitive peer review process that included a review committee of outside experts, so no one at MD Anderson chose the candidates. And these were distinguished colleagues, members of the Institute of Medicine or National Academy [of Science] or people who will likely become members in the future.
So we’ve invested in junior faculty. We’ve also sustained our support for institutional research grants, IRGs, for junior faculty. We have created a new Clinical Innovator award for faculty in the three areas for the R. Lee Clark Program. One was for a science panel. Another was a physician-science panel, and a third was Clinical Innovator. These are individuals who — the majority of their time and effort is in scholarship on the faculty of these different areas. We also want to support people who are largely involved in the management of patients as the major thrust of their work, so we created a Clinical Innovator Program. These are $50,000 awards that can be renewed, competitively, again with this model of outside experts choosing or identifying the most meritorious candidates. And we’ve decided to begin an effort — a substantial effort, a good faith effort — to reduce administrative burdens, so we invested — I made a large investment, on a pilot basis, to make CLIA-approved genetic testing available to patients on trials without cost. And we have made an even larger investment to offset the costs of diagnostic services for patients on trials, so that that wouldn’t be a barrier to patients going on trials. We have made a concerted effort to reduce the complexity and the length of informed consents. We put them online, so that patients can electronically sign these, and we’ve also reduced a number of administrative steps that we involved in what’s called material transfer agreements. So we’re trying very hard to have faculty spend their time doing what they do best, which is their scholarship, their clinical care, their service, their teaching, rather than in the administrative services that are needed.

We’ve also recruited and retained a number of remarkable colleagues at the division head level, at the department chair level, and at the frontline faculty level. So we’ve recruited leaders who are really excited about joining us, and we’ve retained our faculty who are attractive — obviously nationally — to other institutions, and our office makes a lot of time making sure that we retain the very best faculty here. We’re pleased with the record that we have in that area. So how do we encourage these interdisciplinary collaborations? We’ve also made investments in multi-investigator grants, both internally and through the CPRIT mechanism. One of the initiatives that we have is we’ve — as an example, the last cycle for multi-investigator grants to CPRIT were eighteen applications. And even though our faculty are very competitive, we certainly don’t expect all eighteen to be funded. But what we’ve decided to do is to take the four closest CPRIT applications that weren’t funded and have a panel review those, and then support two or three of them to allow these multidisciplinary, interdisciplinary collaborations, because the changing science environment is, as I said, between disciplines.

So we have individual investigator grants from the NIH that are called the R01 mechanism, and we have multi-investigator grants that are called the P01 or SPORE mechanism. So we have ways to support faculty in both areas — for instance, the R01 mechanism we have supported — we created a new program called the INTEREST program that allows us to directly provide mentorship to faculty writing grants, R01 grants. Seasoned reviewers on the faculty will review their grants, provide them guidance — we have science writers who help them with their grant applications. We have a robust bridge funding program, and so we’re adding more resources. So if people are close to making payline — which is the code word for getting a grant that’s in the fundable range — “payline” is the word that’s used. For those who are very close, we’re providing bridge funding to them, and our Institutional Research Grants, which have, as their focus, junior faculty. We recognize that senior faculty moving in new directions are particularly challenging for them to get grants in this stable or this flat NIH budget, and [inaudible] we broadened our institutional research grants to welcome senior faculty for this first time, moving in new directions. So all of those are substantial investments that we’ve made.
Tacey Ann Rosolowski, PhD  
[01:29:43]  
Can I ask — and I’m not even quite sure how to ask this question, but how — I remember reading someplace in my background research that you felt one of your challenges was to create a balance between individually-conducted science and team science.

Ethan Dmitrovsky, MD  
[01:30:00]  
Right, that’s what I’m talking about, yeah.

Tacey Ann Rosolowski, PhD  
[01:30:01]  
Right, and so —

Ethan Dmitrovsky, MD  
[01:30:03]  
But not to — to find the balance, but not to deemphasize either.

Tacey Ann Rosolowski, PhD  
[01:30:07]  
Right.

Ethan Dmitrovsky, MD  
[01:30:08]  
So that’s the challenge, is to find the right balance, but not to support one type of science over the others, because they’re both meritorious.

Tacey Ann Rosolowski, PhD  
[01:30:16]  
Right, and it seems like they could feed each other, obviously.

Ethan Dmitrovsky, MD  
[01:30:18]  
And they are connected, yeah.

Tacey Ann Rosolowski, PhD  
[01:30:20]  
Absolutely. So my question is sort of an aligned question. I mean, clearly, interdisciplinary science, team science has been evolving through the desires of individuals and also out of the necessity of making these kinds of complicated discoveries in what are basically new fields. How — what are some of the challenges that are when trying —
Interview Session: 01
Interview Date: March 3, 2015

Ethan Dmitrovsky, MD
[01:30:43]
Yeah.

Tacey Ann Rosolowski, PhD
[01:30:44]
— to encourage that at an institutional level?

Ethan Dmitrovsky, MD
[01:30:46]
So that’s a very important question that I’d like to address, and so there are many levels of response. One is at the level of the individual faculty members. What they ask us is, “How will I receive recognition or credit, for want of a better word?” So I’ve actually met with the promotion committees at the beginning of every year, and we talk about what we hope to foster, and one of the areas we hope to foster is this area of team science. So we want the people to be recognized for their contributions to discoveries, whether or not they're the first or last author, which are viewed as the most visible positions on paper. But let me say to you — if you have a clinical investigator who is the instrumental individual in the team that can move the discovery from the bench into the clinic, that discovery, as a whole, wouldn’t have occurred without that person. So we have to articulate, in promotion packages, how does that individual receive appropriate recognition and credit. So it starts at the level of communicating the need for us to find ways to promote committees. The other is to make sure our guidelines for promotion accommodate the value of team science, and when there is recognition to be garnered at the time of awards or at the time of visible publications, to give credit to the entire team. Oftentimes, there are a large number of individuals who are essential in making a discovery, because science has become so interdisciplinary. To highlight, spotlight the team approach is really important.

And this is a national trend that we’re seeing, this recognition that teams are important in science and that the team members, obviously, are so important, and they each bring content expertise. What becomes a bit challenging at the moment of promotion is to articulate the role someone played, because there hasn’t been that tradition in the academy, because the focus is always on the first and last author, so we need to develop a cultural tradition to recognize, to spotlight, to showcase the members of the team who, in particular, were instrumental in making the entire project happen. I think the Moon Shots Initiative is a good example of when things can go in a positive direction in assembling interdisciplinary collaborations, because they are — these niches, by their very nature, are team oriented.

So I’m pretty confident that that’s going to be possible to move forward, and then the next is — how can we take full advantage of the scholarship that has been done? So when you make a discovery that might be in some of the most visible journals and in the scientific literature, there are oftentimes follow-up observations, discoveries that can be made, and so we need to find a way to empower those team members, so that each one can have an area of scholarship that’s meaningful to them and meaningful to the people we serve. That’s why this Clinical Innovator Award was created, is actually for — fashioned to support those faculty members who are seventy percent of their time or more spent in clinical activity, to give them funds so that they can make some of these very relevant translational discoveries that their particular expertise lends itself to. So we’re trying to support the team members independently of the other mechanisms that we’ve put in place.
Tacey Ann Rosolowski, PhD
[01:34:52]
OK, that clarifies that a little bit.

Ethan Dmitrovsky, MD
[01:34:54]
Hopefully that helped, but I wanted to emphasize — we are not diminishing discovery science. What we want to do is add upon that strong foundation without diminishing discovery science.

Tacey Ann Rosolowski, PhD
[01:35:07]
Yeah.

Ethan Dmitrovsky, MD
[01:35:08]
It served us well for decades.

Tacey Ann Rosolowski, PhD
[01:35:09]
Because it seems as though — I mean, there are so many areas in which you can exert a pressure point to make any discovery, in the sense of taking a particular possibility for a targeted approach to the bedside when it’s just a glimmer of an idea at the bench. So just to follow up — so I was thinking about that Clinical Investigator Award. So the idea behind that would be if a clinical individual is —

Ethan Dmitrovsky, MD
[01:35:40]
Clinical Innovator Award.

Tacey Ann Rosolowski, PhD
[01:35:41]
Innovator Award.

Ethan Dmitrovsky, MD
[01:35:42]
Yeah, and so the Clinical Innovator Award was meant to be of the broadest scope, so that wouldn’t necessarily be any particular area of clinical innovation. They’re people who are experts in safety systems and experts in population science, and so we were not trying to direct these funds in a particular direction. But we were able to — we wrote a grant to support this program to the first foundation that was funded, so we’ve been able to gain peer review support for this initiative.

Tacey Ann Rosolowski, PhD
[01:36:19]
I guess I was just trying to link the conversation about that award to the conversation about team science, and the idea of taking advantage of the scholarship that had been done. So when I was assuming that, perhaps as a clinician who’s part of a team, an award of this kind would enable them to perhaps make an additional — from bench to bedside approach.

_Ethan Dmitrovsky, MD_

[01:36:45]
Oh, absolutely, that — oh, absolutely. And it could be bench to bedside. It could be bedside to bench. It could be bench to bench. I mean, so I wanted to say there’s so much, when you make a team science discovery, that can be built upon, and we don’t want to be prescriptive about how that has to occur, whether it’s from the bench to the bedside or back again. I think that’s open to the faculty to decide.

_Tacey Ann Rosolowski, PhD_

[01:37:13]
It seems like this is a very —

_Ethan Dmitrovsky, MD_

[01:37:14]
And the first ten awardees, actually, were quite broad in what they were doing, yeah.

_Tacey Ann Rosolowski, PhD_

[01:37:18]
Interesting. I mean, it seems like it’s a very new environment for conducting research. Is that —

_Ethan Dmitrovsky, MD_

[01:37:23]
Yes, and you need to adapt to this —

_Tacey Ann Rosolowski, PhD_

[01:37:25]
Right.

_Ethan Dmitrovsky, MD_

[01:37:27]
So it’s a time of constraint, though — dollars for research. It’s a time of somewhat uncertainty of how the Affordable Care Act is going to be implemented, and a time of exceptional opportunity, because of the decades of discovery science. So all those things are active at the same time.

_Tacey Ann Rosolowski, PhD_

[01:37:47]
Right, right, very complex. I’m wondering if this is a good place to stop.
Ethan Dmitrovsky, MD
[01:37:51]
Sounds that way to me, yeah. Thanks, great.

Tacey Ann Rosolowski, PhD
[01:37:52]
OK. All right, great, and I look forward to continuing our conversation.

Ethan Dmitrovsky, MD
[01:37:55]
Good, good. I hope this has been helpful.

Tacey Ann Rosolowski, PhD
[01:37:58]
Absolutely. Well, let me just for the record say that I’m turning off the recorder at about 10:55 a.m., and I want to thank you for your time this [inaudible].

Ethan Dmitrovsky, MD
[01:38:07]
And thank you so much, good.
Ethan Dmitrovsky, MD

Session Two: 6 May 2015

Chapter 00B

Interview Identifier

Tacey Ann Rosolowski, PhD
[0:01]
All right, the counter is moving. And I am Tacey A. Rosolowski. Today is May 6th, 2015. (laughter) I’m glad I got that right. I just realized I was going to blank on that. (laughter) And the time is about 1:37. And today, I’m on the twentieth —

Ethan Dmitrovsky, MD
[00:18]
One thirty-six.

Tacey Ann Rosolowski, PhD
[00:19]
One thirty-six. OK. (laughter) Today, I’m on the twentieth floor of the Pickens Academic Tower on the main campus of MD Anderson Cancer Center in Houston, Texas. And I am interviewing my second session with Dr. Ethan Dmitrovsky, who is the institution’s provost.
Chapter 10

The Provost’s Office: Acting on a Mandate and A Personal Goal

B: An Institutional Unit;

Story Codes
A: The Administrator;
C: The Professional at Work;
C: Leadership;
C: Mentoring;
C: Research, Care, and Education;
B: Building/Transforming the Institution;
B: Growth and/or Change;
B: Obstacles, Challenges;
B: Institutional Politics;
B: Controversy;
B: MD Anderson Culture;

Tacey Ann Rosolowski, PhD
[00:19]+
So, Dr. Dmitrovsky, last time we talked about your research, and we kind of focused in general on your mandate of managing change at the institution. And today, I wanted to focus a little bit more on the role of provosts in the provost’s office. And to get a sense of what was your mandate when you assumed this office? What did the executive leadership of MD Anderson expect you to achieve? And what was perhaps your personal take on what you wanted to achieve when you assumed that role?

Ethan Dmitrovsky, MD
[01:08]
So my charge in coming to MD Anderson was to continue the good work of the provost’s office in all of the traditional realms, that include recruitment of outstanding faculty, retention of outstanding faculty, recruitment of outstanding students and trainees of all stripes, and to put in place process and procedures that would facilitate the recruitment of trainees. And also, to oversee our School of Health Professions, which is an undergraduate degree-granting program. So we are a distinct institution in many ways. And we are potentially unique in one way, in that we have an undergraduate school.

Tacey Ann Rosolowski, PhD
[01:56]
Why is that significant?
Ethan Dmitrovsky, MD

[01:58]
Because in a university, obviously, there’s undergraduate schools, but we are a freestanding cancer center. I am not sure whether there is another freestanding cancer center that gives an undergraduate degree, because that degree is oftentimes part of a traditional university. So charge was in all of those additional realms, in addition to the other traditional realms, is to oversee conflict of interest policies to adjudicate questions of conflict of interest, questions of research integrity. And to help facilitate the Moon Shots Program, as well as facilitating the movement of our discoveries, not only from the bench to the bedside, but into the community. Which, of necessity, dictates some commercialization. So those were the charges that were given to me when I came here, which are pretty traditional scope of responsibilities for someone with the title of Chief Academic Officer or Provost.

So that would be my response to the first question you had. The second aspect is what was my personal goal. And so I was aware of creative — sorry, I was aware of the need to address morale on concerns of the faculty and the staff, prior — that existed prior to my arrival. And I sought to do all that I could to help address those concerns.

Tacey Ann Rosolowski, PhD

[03:51]
When you arrived, how did you go about kind of getting the lay of the land? You know, what was at work with those issues amongst the faculty and staff?

Ethan Dmitrovsky, MD

[03:59]
So I think it’s very important to listen and to learn, and not to come in with the preconception that you know how to make an institution better if you’ve never been at an institution before. I think it’s presumptuous to say that you know better from the outside of an institution or from another institution when there’s so much content expertise acquired by faculty and staff and students and trainees who are here. So the first thing that I set out to do was to listen and learn, and how I went about that is that we have — then when I arrived, we had 66 departments in 10 divisions. And I visited with each and every one of them. I also visited in small groups with all of the direct reports to me in nonacademic departments, in academic affairs. And the research finance area, visa, and all of the many areas that roll up, which are many, many departments, and many people.

So I actually met with all of the nonacademic departments, and that took almost half a year, with a concerted effort to have multiple meetings a day, or try to have a meeting every day. And I learned firsthand about the pressures, tensions that staff and students and trainees of all stripes had, as well as faculty. And it was clear to me that part of the anxieties people had did reflect the tensions that are now evident nationally in all institutions. Flat or reduced NIH funding, decreased sources of funding beyond the NIH, healthcare reform, which is still leading to anxiety, and uncertainty because we don’t know what Obamacare is going to look like as it evolves. It’s still evolving as it’s being implemented. In a sense, both in the clinical rank — clinical faculty ranks, the clinical care provider ranks, and in in the research faculty, the scholarship intensive faculty, and those with whom they worked, two communities were feeling under tremendous pressure, because in large part, the changing healthcare economics, and the
changing research environment. So what I felt I could do to be helpful would be to implement some new programs that would be of support across the clinical and the basic scientific translation and population science faculty.

_Tacey Ann Rosolowski, PhD_
[06:59]
I’ll ask you about those in a moment, but what else did you learn about kind of sources of anxiety and tension with the faculty?

_Ethan Dmitrovsky, MD_
[07:08]
I think there was an impression that some faculty members gave me, when I arrived, that there was insufficient recognition of the depth and scope of excellence that already existed here in the ranks of the faculty of all backgrounds. And they felt that that needed to be recognized more. And that touched a responsive chord, in my mind’s eye. And so I was focused in my endeavors at first to build programs that would help faculty, or were already here, rather than emphasizing recruitment of faculty.

So to give you an example, we created the R. Lee Clark fellow program, which was named in honor of our inaugural president, R. Lee Clark. And the recipients were mandated to be junior faculty, at the assistant to mid-associate professional level, mid-time and rank. But the criteria was that it had to recognize faculty who were here, not who could be recruited. Now, once they came, they’d be eligible. So I wanted to change a little bit of the balance from recruiting being the emphasis to also fostering the cause of those who were here, because this is what I heard.

Secondly, we created an analogous program that we call the Clinical Innovator Award program that was focused on those clinical faculty whose time and effort were at least 70% clinical effort. That was the other broad theme that I heard in those 76 meetings, is that the clinical faculty with the emphasis on scientific excellence and translational excellence, felt that they were not recognized sufficiently. And so once again, this was tailored to — the clinical innovator award was tailored to faculty who were here. So it wasn’t a recruitment tool. And that they would be able to — the R. Lee Clark program was a $100,000 award, the clinical innovator ward is a $50,000 award — and that they would be able to facilitate their scholarship. So that was meant to respond directly to the feedback I received that there was more emphasis in a group of faculty feedback that I received. Their feedback indicated there was too much emphasis, maybe even imbalance, of bringing people here when there was already in-depth excellence.
The third way I responded to that is that I had heard repeatedly that MD Anderson’s translational community that was running clinical trials felt that there was undue costs associated with the conduct of clinical trials, and I should do something to reduce not only the regulatory burden, which is something I’ll talk about in a moment, but also that I could — that I would be well served, the feedback I received, by addressing some of the actual financial costs associated with trials. And so I thought that was a very helpful feedback, and I mobilized $24 million to be distributed over three years. And we’re on track of distributing about eight million a year to offset the cost of diagnostic services for clinical trials, with a peer review committee determining the most innovative trials that we would support. And this recommendation was to reduce the rates to 59% of the current rates, was a faculty-led panel that made these recommendations. Thought it was important to embrace the recommendations of the faculty, and all I did was to implement those recommendations.

And so we’ve done it on a test basis, and what I’m pleased to have in the record is that so far, we have now supported by differing diagnostic services costs in a peer review manner that is a committee of peers’ reviews of scientific content. We’ve now supported 118 trials. So if you think of a faculty roughly of 1,700 faculty members, many faculty members have been touched by this support. And I think this has done a lot of good for our patients, because the cost of the trials have been taken out of the equation, to some extent, by not having a commercial biotechnology pharmaceutical partner saying, “We don’t want to conduct our trial here at MD Anderson, because your costs might be too high.”

We also set aside $2 million to support innovative clinical trials that were developed here at MD Anderson that would go through a separate peer review process to support, to provide real financial support for these trials. Oftentimes, it’s very difficult to receive NIH funding for such trials. And so we’ve supported a number of those trials, too, as you can imagine. That’s something that touches the lives of many faculty here.

So those are examples of the response, the feedback that I received and the response the provost office had, and this is not being done by me alone, but by the entire team. And all of these decisions were vetted by the entire provost office team. And then we heard another feedback that was more patient-centric, but also woven into faculty. And that was that we needed to do something decisive to defray the costs of genomic testing. And so-called CLIA testing, which is testing that results can be used to guide clinical management. And so we set aside another substantial investment in concert with the IPCT Institute, led by Drs. Mendelsohn and Mills in a partnership model where we partnered in the financial expenses. We’ve set aside $10 million to make CLIA testing, genetic testing for our patients, their tumors tested, and patients eligible for clinical trials to make those tests free to patients. So we’ve made those tests free to patients as part of a clinical trial so that we would learn what that information gained was — how we used that information. And did it mean the patients then had more ready access to innovative clinical trials? And so that experiment is underway, and we’ve now accrued over 400 patients that’s drawn on. Very pleased that the provost office — again a team approach — made that commitment.

And that experiment was one that was done in partnership with the pathology department, with IPCT, with a number of translational investigators. And I have deferred to them all of the data analysis and all of the — I hope they’ll publish their findings as well so that the scientific community can see these investments that we’ve made.
I guess I’ve talked about two large topics: one, what we’ve done to support to support faculty, the other what we’ve done from a research point of view to support patients in a research driven patient care model. And the third is, what I heard repeatedly in those many meetings, is there’s too much of a regulatory burden. And I felt that was a most warranted critique. And unfortunately, I might say sadly, this is a growing trend, that MD Anderson or any individual institution can claim any undue credit, to use sort of an ironic use of the word. And I set out to try to begin to reduce the regulatory burden. And so there are many things that we’ve done in concert with a number of faculty groups. So I receive feedback from Dr. Hagop Kantarjian that there was undue delay in the conduct of clinical trials because there was an additional layer of biostatistical review that was put in place.

In a nutshell, you can’t, of course, conduct any human subject trial without robust biostatistical review. Everyone agrees. And what we were finding is that we would have, as an example, an MD Anderson faculty member who happened to be a quantitative scientist. On the protocol that was being submitted, if it were an investigator initiative protocol, and yet we would have another quantitative scientist, also from the same department, here at MD Anderson who would review the work of their colleagues. And of course, that’s a reasonable, very reasonable to have peer review. But there was tremendous delay that was put in place by the secondary biostatistical review, and the experience was that it didn’t change the final outcome. And this was true over 80% of the time.

And so we brought together a group of content experts, including the department chair, the relevant IRB community members. And to ask, is there — without being directing in any way, without being directing — but to ask, is there any other process that we could put in place for MD Anderson designed trials where they already had biostatistical experts? And so why would you not want to have a process that could streamline, because every day that you delay a protocol being implemented, is a delay and a patient hopefully benefitting. And what safeguards could we put in place so there could be, if needed, an independent biostatistical review?

And so we put in place a streamlining process where there’d be an initial review that would hold up the second — the actual review by the IRB, and we would a priori assume that we had equal content expertise from a discipline. And so we would only delay the protocol if there was some major flaw in the biostatistical analysis, because as in a second opinion for a patient’s case, you sometimes never get identically the second opinion. And so I have a second opinion, was there was a pressing need for a second opinion where the outcome might be different. And so that actually has tremendously streamlined our trials, and another scenario is when you have what’s called cooperative group trials that are supported by the federal government. You really have little ability to change the design of the trial. The option you have is either to accept the trial and conduct it or not, as a multi-institution. And we agreed there was really no practical reason to have a secondary review, because the parental — I mean, the parent sponsor, the federal government, wouldn’t permit you to change the trial. And so it didn’t seem sensical — sensible to have a secondary review, so we don’t do that anymore. We allow the statisticians to say, is this a flawed study or not? And then we wouldn’t accept the trial. And you see, you get the picture of what we’ve done.

And so this has accelerated all of our clinical trials.
Tacey Ann Rosolowski, PhD
[00:20:32]
Yeah, I could imagine.

Ethan Dmitrovsky, MD
[00:20:33]
Tremendously.

Tacey Ann Rosolowski, PhD
[00:20:34]
Yeah.

Ethan Dmitrovsky, MD
[00:20:35]
And the — the other process that we put in place is the federal guidelines for informed consent. There were certain mandated rules and regulations there, meaning that the actual informed consent that a patient reads and signs can be as long as twelve pages, maybe a little bit longer. And we did a review of our informed consents here, and some of them were upwards of over 50 pages, sometimes 60 pages. And so I am powered — again, this was a suggestion made by Dr. Kantarjian that I should do something about this, and I thought that was appropriate. So I —

Tacey Ann Rosolowski, PhD
[00:21:20]
I can’t even imagine a patient actually dealing with a document of that size. (laughter)

Ethan Dmitrovsky, MD
[00:21:23]
Well, many people would take the view that no one would read this, whether you’re a patient or not. And some who — I do lead clinical trials. I’ve never met someone who actually would read 50 or 60 pages of informed consent. So it didn’t seem a sensible thing to do, so we empowered Dr. Jorge Cortes to lead this initiative, and we’re now down to just about federal guidelines. And so this is streamlining the process while preserving safety for our patients. Of course, we’re going to preserve safety.

And another example is material transfer agreements. We had put in so many potential barriers to actually receiving the MTA, material transfer agreement, because there’s always a concern that unless we thought of every scenario that someone might take advantage of an MTA, and conduct themselves in a way that would not be consistent with our core values, many layers of bureaucratic barriers were put in place, and I took the view that oftentimes, people who seek to circumvent rules are highly creative individuals, and there’s no guideline you could put in place to circumvent.
Tacey Ann Rosolowski, PhD  
[00:22:48]  
I have to confess my ignorance here. I don’t know what a material transfer agreement is.

Ethan Dmitrovsky, MD  
[00:22:52]  
So if you develop a reagent in your laboratory — as an example, this is meant just as an example — so I get requests two or three times a week from outside of MD Anderson for reagents that my laboratory has produced. It might be a special DNA vector, they might be a cell line, they might be a mouse model that I’ve developed. And sometimes, these are reagents that might be a compound, that there’s intellectual property associated with it. And so there’s a commercialization potential, as an example. So a material transfer agreement protects the institution’s interest.

And, you know, you can take this to an extreme. And so, and we did. And now we don’t. And so each of these — these are just three examples. Each took us six months to a year and a half to implement. And so-

Tacey Ann Rosolowski, PhD  
[00:23:52]  
It’s funny how nobody sets out to be inefficient, but it develops, and then it takes a long time to unravel all that.

Ethan Dmitrovsky, MD  
[00:23:58]  
Well, not only is that a truth, the way I would codify what you just said, it is very easy to create something, but very hard to uncreate it.

Tacey Ann Rosolowski, PhD  
[00:24:06]  
(laughter) There we go.

Ethan Dmitrovsky, MD  
[00:24:07]  
And so there was a — there’s about a dozen examples like this that we’ve done. And this regulatory burden is a theme that I heard from so many faculty. And I have sometimes made the case that this is — that these changes, I have not advertised, because I feel that there’s a certain critical mass of change you need to make. And before people appreciate that maybe their day to day life is a little bit better.
Chapter 11
Making Changes in an Institution: Goals, Following Up, A Philosophy of Communication
A: The Administrator;

Story Codes
A: The Administrator;
C: The Professional at Work;
C: Leadership;
C: Mentoring;
C: Research, Care, and Education;
B: Building/Transforming the Institution;
B: Growth and/or Change;
B: Obstacles, Challenges;
B: Institutional Politics;
B: Controversy;
B: MD Anderson Culture;

Tacey Ann Rosolowski, PhD
[00:24:47]
Just so I understand that, I’m not quite sure I understood why you’re telling me that. You know, this this — are you kind of waiting to have a kind of critical mass of —

Ethan Dmitrovsky, MD
[00:25:00]
Oh, no. I — I think that sometimes, we overpromise and underperform in academic medicine. And I have a different philosophy. I think you want to underpromise and overperform. And part of my view is that therefore, you don’t tout successes until people come to you and say, “Oh, I notice I’m saving time.” I think in the academy, it’s much easier to have the faculty appreciate the change. And they then be respective spokespersons for a change being a good or less good, rather than have an administrative leader say, “Oh, look what I’ve done.” And I think that’s more a subject of sociology than — so I was actually making a very different point. (laughter)

Tacey Ann Rosolowski, PhD
[00:25:44]
Yeah, OK. But, you know, I was going to ask you about what — it goes to the issue of what’s been the impact of all of these initiatives you’ve taken, on that original problem of morale.
Yeah, so the whole goal — so the whole goal is to reduce the time taken by frontline faculty to reduce their time on less productive activities, and to increase their time available for more productive activities. And I would view taking care of patients, conducting clinical trials, and making discoveries as examples are a productive use of their time. Filling out forms is less productive. And so I would hope that the community will recognize that there’s actually starting to become more time available. Now, a bit of a steady state, because there’s always new roles and regulations put in place.

But I’ll give you just one final example, that we have annual recertifications for so many process and procedures to make sure you’re annually certified, the use of endowed funds, and the compliance to a number of mandated compliance issues, like animal care, human trials, all these things. There’s a long list. And it turns out that some of these mandates are not actually annual. And so what we’ve done is gone to the federal guidelines. Some of them are every other year, some are every three years. And rather than imposing on ourselves an annual recertification, why don’t we just adopt what the federal government is asking us to do? So we’ve actually done that, too. It doesn’t seem too creative, but it saves, if you can imagine —

And so if you ask someone in the administrative community, well, why did you make it annual when the guidelines say it’s every other year, or every third year? And the response is always that, well, we want to set our standards even higher. And so I accept that. But then you have to ask another question, which is does that yield the desired outcome? Are we being more vigilant? Are we complying more readily? And so I’ve always asked that question, give me the data? Are we — can we do an experiment, so to speak? Can we test the hypothesis that we will be equally safe if we do it every other year? And so those are the sorts of things that we’re doing. And so frontline faculty realized that an annualized certification that becomes every other year, they do notice that.

So this is the third topic of excessive regulation. And then, in order to address some of the concerns of the faculty, I recently, in partnership concert with our physician in chief, Tom Buchholz, I circled back to all the departments and divisions again. But this time, more in terms of at the divisional level. And we reported back some of these investments that we’ve made, and in town hall-like settings. So we had, oh, about 10 town hall meetings recently to circle back. And I guess that would be the fourth subject, is communication. Like, what we’re doing right now, is that in an institution of roughly 21,000 people, you cannot have personal communication with 21,000 people. And I hope your oral history will be delivered to many of our community members, that just a meeting with one-on-one is not possible to meet with 21,000 people, one-on-one. And so even if you meet in small groups, and you might do it once or twice a year, that’s not the only way you can communicate. And so I’ve tried to use every opportunity I can, such as this project, to communicate back to the faculty.
Tacey Ann Rosolowski, PhD
[00:30:07]
Can you — are there other outcomes that you’ve perceived maybe even at just a personal, anecdotal level? You know, change, positive changes in faculty morale and feedback that you’ve seen as a result of these efforts, which had been considerable, obviously?

Ethan Dmitrovsky, MD
[00:30:27]
Many people have a healthy skepticism about administrative leaders. You may be surprised to hear that. (laughter)

Tacey Ann Rosolowski, PhD
[00:30:34]
I’m not, actually. I see — I interview creative people all the time who are suspicious of authority and structure. (laughter)

Ethan Dmitrovsky, MD
[00:30:43]
And so I take that as a given, because I — I’m a faculty member first and foremost. And I’ve tried to always — to always act. And certainly, I consider myself a faculty member first. So when I first arrived here as a new member of the community, I was struck by the healthy skepticism, that frontline faculty had and have towards administrative leaders. And as a faculty member, I am aware of that thread to the academy. But it seemed to be particularly robust here. And when I first arrived, I was struck by that. And I was familiar with people in private meetings, feeling very comfortable speaking their mind. And people weren’t here, and I didn’t really understand why. So I wanted to provide more opportunities for people to have direct interactions with the provost’s office. And I was charged to overseeing an office that would serve the needs of the faculty.

So I then established a series of breakfast meetings, largely, sometimes lunch meetings, with many different groups who had no administrative titles. One group was junior faculty, had multiple meetings with junior faculty. Another was long-serving faculty, and many meetings like that. And this is in addition to all of the departmental meetings that I had. And so after a few months of this effort, I noticed the changes, that people actually started feeling very comfortable, reporting whatever they were concerned about, be they integrity issues, be they retention issues, be they recruitment issues. And I felt that the community had accepted the premise that I was putting forward that the Provost’s Office was, for want of a better word, a safe place for people to come and report their concerns. And I tried my level best whenever someone would raise an issue that was important to them to carefully, thoughtfully, fully review and act upon and report back. And so now, I notice a very different dynamic, for want of a better word, is that people do feel comfortable communicating.
Here, they’re concerned, and my hope is that if this extends beyond faculty to staff too, I would say that’s my impression, that they then will feel comfortable thinking that the administrative leadership actually has a goal to serve their needs and to make their work easier, and their day-to-day professional alliance easier. So I’ve noticed the change. It might be that those are the only people that are coming to meet with me. (laughter) But I do meet with many, many people. I have met with most of the faculty in small groups at this point, usually many times. And so I think that people do feel very comfortable.
What are your plans for continued management of this sort of change at the institution, both the cultural level, and practical level?

Ethan Dmitrovsky, MD
[00:35:03]
Yeah. I think that’s a great question, because it’s a question that’s forward-looking. And also, is a way for me to say something that I haven’t had a chance to tell you yet, is that in order to address concerns in the community, leadership does matter. And leadership is not defined, in my mind, as at the executive vice president level solely, or even largely, but really local leadership. And so I’m charged with recruiting all new department chairs and division heads. And so what I’ve been looking for are academic leaders who care more about others than themselves, who are renowned physicians or accomplished physician scientists, or scientists of great merit in their own rights, but at the same time, have this intangible desire to help others more than themselves.

So it’s not hard to find a distinguished scientist or clinician, or clinical investigators. It’s not easy, but it’s not hard. It’s not hard to find an emotionally intelligent leader who cares more about others than themselves, but it’s really hard to find both in the same person. And that’s what I’m looking for, because if you are successful — and only time will tell if I’m successful with my colleagues, since this is a team effort, then we will have in place leaders of the tradition of servant leadership, but also scholars of great renown in their own disciplines, who all have a lasting effect in the community. And most department chairs and division heads serve for many, many years, sometimes decades. And if you choose wisely, just think of all the lives that will be touched, the faculty, the staff, the patients, the trainees, the students. And you can amplify the good actions of a good leader.
And so that’s what I’m striving to do now, at the department chair level, the division head level, at the institute director level. And again, time will tell, and it’s for others to decide, not for me, whether there is progress being made. And so that’s something that I’m working hard to do.

Tacey Ann Rosolowski, PhD  
[00:38:02]  
Are you addressing that issue in any way — I mean, as you did in the first instance of responding to faculty feedback that you raised, which is, you know, not only working with that issue with recruitment, but with existing faculty, are you trying to foster that kind of leadership pipeline within the institution?

Ethan Dmitrovsky, MD  
[00:38:23]  
Well, thank you so much for that question, because yes, I am trying to do that. I wanted to emphasize that I don’t have any predetermination of whether recruitment should come from within the institution, or from outside. So that’s not a variable that enters into the conversation. We’re looking for the qualities that I’ve just described.

Tacey Ann Rosolowski, PhD  
[00:38:50]  
OK. I guess I misunderstood.

Ethan Dmitrovsky, MD  
[00:38:51]  
Yeah. So, I think we have — I’ve not done the analysis, but there’s as many folks we’ve promoted from within as we’ve recruited from without. And I don’t know which group is larger.

Tacey Ann Rosolowski, PhD  
[00:39:06]  
OK. I was just making an irrelevant assumption there, so I apologize.

Ethan Dmitrovsky, MD  
[00:39:08]  
No, but I’m actually going to follow up, because I interpreted your question differently than you have. So every new leader I actually provide through the provost office a personal coach, a mentorship team, and direct access — confidential direct access — to me and to the physician and chief together whenever we bring in a new leader. And we’ve been doing this at all division head levels, all department chair levels, and all other leadership levels. And we also make available the faculty leadership academy resources, the course resources, the ongoing conferences that they have which last through the year.
And my impression is that these are tools which really help leaders. And I’ve really not met anyone who is naturally able to lead without any coaching or mentorship, and so I feel that it would be really helpful to make these services available, and so that’s what I’ve been doing. And it does help address so many of the complex issues that cross any academic leader’s desk. So that’s what we’ve been doing. So I hope I clarified what I was saying. Yeah.

Chapter 13
Evolution as a Leader
A: Professional Path;

Story Codes
A: Personal Background;
A: Professional Path;
A: Influences from People and Life Experiences;
A: Professional Values, Ethics, Purpose;
C: Professional Practice;
C: Leadership;
C: Mentoring;
D: On Leadership;
D: On Mentoring;

Tacey Ann Rosolowski, PhD
[00:40:34]
Oh, yeah. And that’s — that’s pretty amazing. I mean, it’s a recurring theme, actually, in the interviews when people, particularly of a certain generation, say when they’ve assumed positions of leaderships, they had no training. And so they had to seek it out on their own, and then there were few programs they could go to.

Ethan Dmitrovsky, MD
[00:40:53]
Or they learned on the job, which is the least effective way.

Tacey Ann Rosolowski, PhD
[00:40:56]
Yeah, yeah. Sort of more dramatic stories, perhaps, but least effective. (laughter)

Ethan Dmitrovsky, MD
[00:41:01]
So yeah, I never had any of those resources as I became an academic leader, and I felt that that was not a prudent path to have for anyone. So I’ve made these resources available. They’ve been large investments we’ve made in every individual leader. As you can imagine, these are not revenue neutral. They require sizable investments. But I think they’re really — they’re very wise investments that the institution is making. Not that I’m making, that the institution is.
Tell me a little bit about some key moments in your own development as a leader. You know, what are some moments of a-ha, or lessons learned that were really important for forming who you are now as a leader?

Well, that’s a great question. I wish I had a crisp answer. (laughter)

Un-crisp answers are OK too. (laughter)

I can tell you — I mentioned that I hadn’t been formally trained as a leader. And I became a department chair at a relatively young age. I was in my early forties. And I learned — this might surprise you — the most about leadership from not good examples, but from the opposite. And so I saw a number of leaders, academic leaders, whose behaviors towards others I didn’t want to — I didn’t want to respect or want to emulate. And I’m really grateful to them for what they’ve taught me. And so I saw many more examples of that than of the servant leader. And so I thought that I would try my level best as to not emulate some of the bad behaviors that I saw, or less favorable behaviors that I saw. And I was fortunate to have had some striking examples of less than effective leadership. And they were great learning opportunities, and so I decided to not follow in some of the footsteps that I saw. And that was an a-ha moment.

And the other was an appreciation of how when you do find someone who has great leadership skills, to have a foresight to reach out to them, and develop a working relationship with them so you can learn directly from them. And I had some rare individuals who I met in my career who I thought were remarkably effective leaders. And I have sought to emulate them.

Do you feel comfortable sharing their names as influences?
Ethan Dmitrovsky, MD

When I was asked to be the interim dean of the medical school at Dartmouth, I was asked to do this by the former president of Dartmouth, James Wright. And he was a very model example of the servant leader who had come up through the faculty. He was an historian. He’d been on the faculty at Dartmouth for 31 years when I met him, and had risen through the academic ranks, from a tenured professor. And he had a very historical view of an institution, and thought in terms of positions made in terms of the positive influence it would have far beyond his tenure. And so I met someone who taught me how to think about decision making, not in the near term, but the long term. And it was because he viewed institutions from the prism — the lens, rather — of an historian’s view. I thought that was an incredible way to look at leadership, and to — and he, himself, had made some decisions that were controversial to the faculty and student body who were there at the time. But he always told me how confident he was in the long run, that he was making the right decision for the institution in the long run.

So that, he and I worked closely together, and I thought he taught me — and I tried to learn from him — that an institutional leader should make the right decisions for the institution, whenever they were asked to make a decision but never do so from the short term, and never consider the political ramifications. And so he was, to my mind, remarkable, because he would make decisions that he thought was best for the institution, and he absolutely was — adored the institution. Even if it were decisions that would personally reduce the regard he would have by others in the short run. But he was confident he was making a decision that would be helpful to the entire institution over the long run. And I thought that was an incredibly valuable lesson, and I tried to do that in my own career.

Tacey Ann Rosolowski, PhD

We have about five minutes left today. And I have lots of long-answer questions left to ask you, but — (laughter)

Ethan Dmitrovsky, MD

Yeah. Well, we could make try to do one less long session, if we could sort of keep it less than, you know, an hour, you know?
Tacey Ann Rosolowski, PhD
[00:47:09]
OK. Well, that would be great. I guess in the few moments that’s left, maybe I could ask you kind of a medium-size question.

Ethan Dmitrovsky, MD
[00:47:18]
Right. Go ahead.

Tacey Ann Rosolowski, PhD
[00:47:19]
Which is about helping manage the roles of individual faculty. I know there’s been a lot of discussion about how to help faculty move through the promotion levels. And I’m wondering, some thoughts that you’ve heard from faculty about that process, and how you’ve addressed that.

Ethan Dmitrovsky, MD
[00:47:41]
Advancement of faculty is such an important topic. And I’ve heard — I’ve received so much candid feedback about the promotion process here at MD Anderson, which as you know, is different than at most other institutions, because there’s not lifelong tenure, but term tenure. And so in a sense, that that distinct, if not unique, tenure system — term tenure system differed from a tenure system, has its own dynamics.
So putting that aside, because that’s a separate topic, the consequences that people feel the need to prove their merit in the promotion process on a regular basis. And they sometimes feel they don’t have all the tools that are needed. So what I’ve asked Dr. Oliver Bogler [oral history interview], who’s our senior vice president for academic affairs, to do, is to try to selectively go back to those groups where the anxiety is greatest. And those groups tend to be the most clinically active groups, that don’t have enough time for scholarship, so that we could give them some added assistance in the promotion in tenure process.

And so what we also learned is that the department chairs had variable experiences, in terms of how you write a robust chair-letter supportive of a faculty member. And so what we’re trying to do is provide chairs with some guidance about how do you support — how do you maximally support a faculty member? And we found that, in the promotion process, is that there was a need for additional content knowledge.

And in a focused manner, when we realized there were groups of faculty who were particularly having difficulties with the promotion process, I’ve had the office of the — provost office make directed investments in those departments. And so what we did is we mobilized research dollars at the department, and at times at the division level, for faculty who we could provide them resources through a peer review process, that would allow them to develop the additional publications or clinical trials that some resources would make available. And I’m beginning to see an improvement in terms of the success rate by these investments that we’ve made.

And at the same time, I thought it was really important that we have a didactic program put in place, so we can explain what was seemingly an opaque process. What do you need to do to become promoted? So we actually had sessions for every different type of faculty. Tenure track, or CFA or RFA track, the non-tenure track positions that we have in the faculty, all important and meritorious paths for people to go advance their careers through. So we had sessions with the chairs of the promotions committee to invite anyone who would like to come. These were video taped, so they’re online. I attended each one of them to try to touch on some of the common challenges that people have been putting together a robust portfolio.

So my expectation is this will be a multiyear effort, and that communicating more clearly by the folks who are the co-chairs of the promotions committee, what the panels are looking for, and what you need to do to assure, with a high level of certainty, that you’ll progress, has been really valuable. And I’ve always — because every promotion package crosses my desk and crosses the president’s desk, I do try to really take a view of — a humanistic approach, which is that we’re very understanding that sometimes people have life events that have intervened, that the promotions committee will never be privy to. I might know that they had a husband who passed away of cancer or a wife, or a sick child. And I might be privy to information that, of course, I guess it’s of a confidential nature, the promotions committee would not.

And I’ve always erred on the side of being humanistic, and so I’ve tried to look at proposals for promotion or appointment from the point of view of has there been a major life event that may have caused someone who, for many years, has been productive, and they’ve had an illness themselves? We have a mechanism in place. But what if there’s a family member, or they were a major caregiver for a mother or father? Or another life event intervened? And these events do occur.
So I have to report back to the promotions committee if I ever disagree with them, whether I disagree in favor of the faculty member or not. And I never reveal the private information that I might have access to, but I do tell the promotions committee, “You voted a majority view unfavorable for this faculty member, but you may not know that there are some extenuating circumstances that would make me feel that it would be appropriate to either defer their decision for a year, or to be favorable when they were not.” These are very rare events. They’re not common. They occur, you know, infrequently, less than four or five percent of the time, but they do occur. And at the same time, I want to also be mindful that I have to be an arbiter if there are ethical issues that occur.

And I know that good people can make bad decisions. And I do try, when possible, to give people a second chance. But if someone recurrently has lapses of behavior, then I do take that into account, too. So on the rare circumstances where a positive evaluation may have been overturned, since I’ve come here, I may be privy to some information regarding integrity or other issues that, by their very confidential nature, the panel of reviewers can’t ever know, or am I allowed to tell them. But I do have to report back, What were the general reasons? These are very rare disagreements. But, you know, I’ve tried to be humanistic.

_Tacey Ann Rosolowski, PhD_
[00:55:53]
Well, Dr. Dmitrovsky, I’m very aware of the time. So, yes.

_Ethan Dmitrovsky, MD_
[00:55:55]
Yeah, I have another meeting. Thanks so much for your time.

_Tacey Ann Rosolowski, PhD_
[00:55:57]
Well, yes, thank you very much.

_Ethan Dmitrovsky, MD_
[00:55:58]
Good, good.

_Tacey Ann Rosolowski, PhD_
[00:55:59]
I look forward to talking to you next week.

_Ethan Dmitrovsky, MD_
[00:56:00]
Yeah. So you’ll work with Nadia.
Tacey Ann Rosolowski, PhD
[00:56:02]
I will. And I’m turning off the recorder at 2:33.

Ethan Dmitrovsky, MD
[00:56:07]
See you.

Tacey Ann Rosolowski, PhD
[00:56:08]
Thank you very —
University of Texas MD Anderson Cancer Center  
Making Cancer History® Voices Oral History Project  

Ethan Dmitrovsky, MD

Session Three: 6 July 2015

Chapter 00C

Interview Identifier

_Tacey Ann Rosolowski, PhD_  
[00:00:02]  
All right. We are recording. And it is about twenty minutes of 11 on July 6th, 2016 — or 2015, excuse me. And —

_Ethan Dmitrovsky, MD_  
[00:00:11]  
Yeah. Lost a year there for a second.

_Tacey Ann Rosolowski, PhD_  
[00:00:13]  
(laughter) Wow, not a good idea to lose a year. And I’m on the twentieth floor of Pickens Tower interviewing Dr. Ethan Dmitrovsky for our third session together. So I wanted to thank you again for making time.

_Ethan Dmitrovsky, MD_  
[00:00:27]  
Thank you for being part of this really important and timely project. Thank you. Yeah.

_Tacey Ann Rosolowski, PhD_  
[00:00:31]  
Well, thank you. Well, and, you know, I really wanted to thank you for participating since you’re so early in your tenure at the institution. And I know how valuable your time is, but I wanted to emphasize how important it’s been to have your participation, because we’re really in a moment of transformation in the institution’s history. And so getting your perspective on history in the making, basically, is very valuable. So...

_Ethan Dmitrovsky, MD_  
[00:00:56]  
Well, I appreciate the opportunity. Great.
Chapter 15

The Institute for Applied Cancer Science: The Research Model

B: An Institutional Unit;

Story Codes
C: Research, Care, and Education;
B: Building/Transforming the Institution;
B: Multi-disciplinary Approaches;
B: Growth and/or Change;
D: Business of Research;
D: Fiscal Realities in Healthcare;
D: The Healthcare Industry;
D: Understanding Cancer, the History of Science, Cancer Research;
D: The History of Health Care, Patient Care;
D: On Research and Researchers;
C: Healing, Hope, and the Promise of Research;
C: MD Anderson Impact;
B: Industry Partnerships;

Tacey Ann Rosolowski, PhD
[00:00:58]
Yeah. It’s really, really great. So as I mentioned before we turned on the recorder, I wanted to maybe have a little bit more of a theoretical discussion today, kind of a 20,000 foot view of what’s happening at the institution vis-à-vis research. And in part, this was inspired by my conversation with Dr. DePinho last week, and we talked about the Institute for Applied Cancer Science, and how unique that is. So I kind of wanted to get your perspective on the research model that that represents, because it appears to me that that is really where the emphasis is sitting in the institution. You know, that notion of collaboration across many disciplines, coming forward to push forward research, not only within the institution but outside. And then we’ll kind of go from there. So how would you characterize that particular model of research, and what it can accomplish?

Ethan Dmitrovsky, MD
[00:02:01]
Well, our purpose here at MD Anderson is to combat cancer in Houston, Texas, the nation, and the world. And that’s a pretty tall order. And our way of approaching it is to build interdisciplinary, and I’d say multidisciplinary, teams. The future of science is collaborative. And the more you can bring together experts of different disciplines, different expertise, who are working on a shared problem, the more discoveries that will happen. In fact, many people believe that most discoveries will occur in an unusual area, and that is the area between the expertise of different disciplines, that discoveries will come about through interdisciplinary, multidisciplinary collaboration.
**Tacey Ann Rosolowski, PhD**
[00:03:03]
I’m sorry to interrupt you, but can you give me an example of that kind of in-between space that gives rise to discovery?

**Ethan Dmitrovsky, MD**
[00:03:09]
I think an example of that would be general medicine. The fact that we have the human genome sequenced, and now the cancer genome is being elucidated, and that we can take that knowledge and apply it to having a more effective and efficient therapies that target the very cause of a cancer, that requires experts in genomic medicine, experts in DNA sequencing, experts in big data, and at the same time, experts in clinical trials, people with the content expertise who could take advantage of new knowledge gained. And so here’s an example where no single content expert can move forward the discipline of moving discoveries from the bench to the bedside, but it must be done collaboratively. That would be an example. And I think it’s a germane example.

So at the same time, there’s an appreciation that there is a — there are inherent barriers to discovery, and — sorry, inherent barriers to moving a discovery from the bench into the clinic. Many times, the reward system for faculty members stopped when you produced the visible paper in *Cell*, *Science*, and *Nature* as an example. But actually, MD Anderson has the view that no patient was cured by a *Nature*, *Cell* or *Science* paper. It was the application, the dissemination of that knowledge from the bench to the bedside. And so we are emphasizing the need to accelerate those discoveries — Moon Shots program, launched by our president, Ron DePinho, is a good example. But IACS [Institute for Applied Cancer Science], which is the subject you asked me to touch on, is another good example.

So IACS is an example of bringing in those with content expertise who typically would reside in a biotechnology or pharmaceutical entity, and have them embedded in an academic enterprise. That facilitates the movement of a discovery from the bench to the bedside that must move through identification of a target, development of a drug that will affect the target, and make that drug amenable to use in clinical trials. It is surprising that oftentimes it takes upwards of 15 years for a basic science discovery to move through the different phases of clinical trials into ultimate FDA approval, and another reality is that once a new standard of care has been put in place, surprisingly, it takes many years, perhaps well over a decade, for that to be incorporated in every community possible.

So IACS is one example of how we could reduce the time to develop new drugs that could combat cancer, and perhaps at the same time, take best practices here and disseminate that knowledge broadly into our sister institutions, our regional care system that we have in place, but also our peer institutions in the United States. And so this is an example of what I would call social responsibility, to take this knowledge gained and apply it to benefit the public health. And surely, that’s part of our responsibility.
Chapter 16

Global Academic Programs: the Advantages of Collaboration Part I

B: Beyond the Institution;

Story Codes
B: Beyond the Institution;
B: Multi-disciplinary Approaches;
B: MD Anderson Culture;
B: Institutional Mission and Values;
B: MD Anderson Impact;
C: Human Stories;
C: Offering Care, Compassion, Help;
C: Patients;
C: Cancer and Disease;
C: This is MD Anderson;
C: Patients, Treatment, Survivors;
C: The Professional at Work;
D: Global Issues –Cancer, Health, Medicine;
C: Healing, Hope, and the Promise of Research;

Ethan Dmitrovsky
[00:03:09] +
And what is distinct, if not unique, is this network, global academic program network, that has well over 30 sister institutions now, where we have a real desire to disseminate our best practices, to our sister institutions, and to learn from them about their best practices. And though this collaborative, bidirectional approach to raise the excellence of cancer care and cancer research, far beyond our campus.

Tacey Ann Rosolowski, PhD
[00:07:38]
What kinds of knowledge comes back to MD Anderson, through the sister institution, the links created through global academic programs?

Ethan Dmitrovsky, MD
[00:07:49]
So I was — I’ll give you an example of that. I was in China just a few weeks ago, launching our latest sister institution at Hunan Cancer Center. And it was a very, very exciting moment, and I learned a great deal from that visit, and that event. I was most fortunate that the president of the cancer center gave me a personal tour through the clinics. And there is an example of how we could contribute to the health of the citizens of Hunan Province in China is that there’s a heavy burden of tobacco use. And we have best practices that have been developed over many decades here at MD Anderson that allow us to develop apps on iPhones that could be culturally sensitive. Perhaps we could develop a culturally sensitive app which could be used on iPhones, which are nearly universal in China now. So that we could, in a
culturally sensitive way, provide best practices that could be used for the prevention of tobacco use in the first place, and the cessation of tobacco use in those who are smokers.

_Tacey Ann Rosolowski, PhD_

[00:09:22] And these were created by people in behavioral science. Yeah. I interviewed Ellen Gritz [oral history interview].

_Ethan Dmitrovsky, MD_

[00:09:26] Yeah, Alex Protopopov. Yeah, Ellen Gritz, Alex Protopopov, and Paul Cinciripini. But mainly, Alex has developed these platforms. And I had the occasion to meet with the minister of health for Hunan Province, and I spoke specifically about this educational tool, because we could help them place that into their school system. So that would be an example where MD Anderson could help the citizens of Hunan, but at the same time, there are ways that we can learn from best practices in China. So there is many thousand year history of traditional Chinese medicine. And there are practitioners here in the United States. So what I’ve learned was that at Hunan Cancer Center, they have a distinctive, not unique, traditional medicine center that combines Western medicine with Eastern medicine. So it’s a shared service, where you have traditional Chinese medicine practitioners practicing side by side with Western trained.

And so I spoke to the oncologist, and I asked did they use the traditional Chinese medicine? And they absolutely did, for symptom control. And so here is an example of a different model of healthcare delivery, where we might learn and perhaps even be able to control symptoms of our patients using traditional Chinese medicine.

_Tacey Ann Rosolowski, PhD_

[00:11:00] Was that the center — I know that there are some folks in Integrative Medicine who are doing research on and use of meditation for symptom control. Is that —

_Ethan Dmitrovsky, MD_

[00:11:07] Yes. So this isn’t meditation, this is actually herbal medicine. Plus acupuncture. And so the idea here is that we might be able to control the symptoms of our patients by adopting best practice from thousands of years of clinical experience. But what I’m saying is there’s something we can learn from this partnership between Western and Eastern medicine. That’s what was so interesting for me to learn, that they brought together both disciplines in a single clinic, and a single inpatient ward. And so I visited a patient. I did rounds, I visited a patient with pancreatic cancer who was suffering from intense pain, and was being administered an infusion of traditional Chinese medicine that actually was able to control his pain far better than narcotics. So that would be an example that perhaps there’s a new pharmacology that we could learn from. That would be an example, I think a germane example. Yeah.
Tacey Ann Rosolowski, PhD
[00:12:10]
Sure. And, I mean, part of it would als—

Ethan Dmitrovsky, MD
[00:12:13]
And the patient was helped. And so I spoke to the patient, talked to his patient at his bedside to ask how his pain was before he came into the hospital, and how he was faring now, and he clearly derived benefit.

Tacey Ann Rosolowski, PhD
[00:12:25]
And probably without side effects too, that —

Ethan Dmitrovsky, MD
[00:12:28]
Well, my Chinese wasn’t — wasn’t so well advanced that I could get into that level, but — and we were on rounds, so we weren’t able to calibrate them. But clearly, a patient was suffering before being admitted to this shared ward. And so that would be an example that perhaps we have something to learn, in a bidirectional way. So that’s the point I wanted to say, is that this is just not best practices being disseminated to sister institutions, but in a bidirectional way.

Tacey Ann Rosolowski, PhD
[00:12:57]
And probably could eventually leave to clinical trials, investigating —

Ethan Dmitrovsky, MD
[00:13:01]
Absolutely. And that would be the next point, is that wouldn’t it be remarkable if MD Anderson could set up international trials? And perhaps we could compare a Western medicine approach to tobacco control to the pharmacology that we have available to an Eastern medicine approach. So I actually visited their tobacco control clinic, and saw a patient who was being seen. And they were mainly using Western approaches, perhaps a shared approach would be — of using Eastern and Western medicine could be a way to get even better benefits. And that could lead to a clinical trial. So that would be one example.

Another example is that cervical cancer is a heavy burden in China, far more of a burden than it is in the United States, because there is not dissemination of a pap smear. And surprisingly, there is not dissemination of the HPV vaccine. So I know that there are trials underway internationally to ask — one of the barriers would be HPV — HPV vaccine takes three shots, which is a very expensive approach. And recently, a new HPV vaccine was approved by the FDA that’s more effective. Perhaps in having three vaccinations is a barrier to disseminating this into a country of 1.4 billion people. Well, perhaps we can consider trials for you to compare one vaccination to two to three, to ask if you could reduce the cost. And that would be another example.
And so China has not made the public health decision to make HPV vaccination available to all its citizens because of expense. That would be another example where we could be helpful.

_Tacey Ann Rosolowski, PhD_

[00:15:11]

Oh, I had it on my list of questions to ask you more about global academic programs. And so what is your vision of how those international collaborations can evolve in the next 10 years? You’re talking about your ten year strategic plan. What’s the international piece?

_Ethan Dmitrovsky, MD_

[00:15:27]

Yeah. The international piece is a really powerful tool for us to use to wage against the cancer problem worldwide. And it is remarkable that MD Anderson has this reach. So again, returning to what I said before, it’s our social responsibility to make the most of this remarkable community of international investigators who just visited MD Anderson, as you know, a few months ago. And the GAP program, the Global Academics Program, has developed tremendous good will, tremendous sense of partnership. And we have a joint grant program with the gap program affiliated institutions, where we will co-fund projects that are collaborative with MD Anderson on faculty, and with faculty of the GAP program. So that’s a very distinct, if not unique, program.

And this goodwill is poised to allow us, permit us to actually open up clinical trials that might be disseminated throughout the GAP [Global Academic Programs] program. More through selective members of the GAP program. So one of the opportunities that I think we should take full advantage of is the goodwill that’s already been created, and that we could conduct clinical trials that would benefit citizens from other countries, as well as potentially citizens here. A good example would be the new HPV vaccine. How many vaccinations are needed? What would be the right number? What’s the most cost effective way to deliver? And I see this as a great opportunity for us to disseminate our trials in this network of — goodwill network of collaborating institutions.
Chapter 17

*Global Academic Programs: the Advantages of Collaboration Part II*

**B: Beyond the Institution;**

**Story Codes**
B: Industry Partnerships;
B: Beyond the Institution;
B: Multi-disciplinary Approaches;
B: MD Anderson Culture;
B: Institutional Mission and Values;
B: MD Anderson Impact;
C: This is MD Anderson;
B: MD Anderson Product Development and IP;
D: Global Issues –Cancer, Health, Medicine;
C: Healing, Hope, and the Promise of Research;

*Tacey Ann Rosolowski, PhD*  
[00:17:49]  
This is more of a financial kind of question. Research is very expensive to run. Speaking with Amy Hay [oral history interview], Dr. DePinho [oral history interview], I mean, there’s really an intention as the institution is being transformed, and becoming very, very much more research heavy than ever before, probably. And with the changing economic environment of healthcare and cost, there’s a need for additional revenue streams. And I’m curious, as you’re thinking about these academic collaborations, you know, to what degree is that also in your mind, how some of these connections that are based on intellectual and clinical collaborations, how they might transform into relationships that can eventually be commercial or MD Anderson?

*Ethan Dmitrovsky, MD*  
[00:18:42]  
So those are great questions. I would say that the emphasis right now is social responsibility, rather than commercial benefit. We have other opportunities that cross my desk that are of more of a commercial nature.

*Tacey Ann Rosolowski, PhD*  
[00:19:05]  
Can you talk about those?
Ethan Dmitrovsky, MD

[00:19:06]
Yeah. And those relationships, you know, for instance, there, we have developed just as one example, a
collaboration with Ziopharma, Z-I-O-P-H-A-R-M-A, which is co-development of new technology and T-
cell — modifying T-cells for cancer therapy. This is a technology that was pioneered by Dr. Lawrence
Cooper, who was now a faculty member here until recently, who has now become the CEO of Ziopharma.
And what we have put in place is a robust institutional conflict of interest plan so that any revenue that
might come about will be — will reseed new translational research.

And so I wouldn’t view the GAP program as the driving force of healthcare economics, because most of
these nearly — nearly all, not all, but nearly all of these relationships are only driven by social
responsibility. Not only to be diminutive about the call, but to say that’s the emphasis. We have not — in
the majority, have not developed these relationships to commercial audience. Rather, some of our
intellectual property has been commercialized in the hopes of decreasing the time for a discovery cycle.
But at the same time, could potentially develop in a way that would be consistent with an all UT system
and MD Anderson and federal guidelines to be compliant with all rules and regulations that are relevant,
to find a way to have that become an engine if you want, to discovery.

So most of those relationships cross my desk. And I look at those as opportunities for us to develop an
independent source of support for the scholarship of our faculty, because NIH funding has been sadly flat.
And even if it does increase, it — very few people are thinking, right now, that it will increase to the level
that will fill the gap of the funding deficit that has been developed by the flat budget for many years. And
the purchasing power of NIH grants are also limited, because oftentimes, you don’t receive the full
amount of support that was approved by a study section, by a portion of it.

So we do need to find new ways to support the scholarship of our faculty, and we are blessed by having
many supporters, many stakeholders who support us in a philanthropic point of view. We need to
diversify that support to include taking full advantage of our intellectual property as an engine to support
new discoveries. So I wanted to make sure you understood that those are sort of two different topics, and I
try very hard not to mix them, because if you look at these relationships globally as potentially, first and
foremost, commercial partners, then that can erode a sense of social responsibility, as a drug developer.

Tacey Ann Rosolowski, PhD

[00:22:52]
No, I’m glad you clarified that. Very glad. What do you think —

Ethan Dmitrovsky, MD

[00:22:57]
Now, I just wanted to make sure that you understood that there are some relationships that are more
closely aligned than a typical sister institution, where we actually provide an ongoing consultation, so that
an institution can raise their clinical practice to standards that would be likened to those that were present
here. And that requires an intensive effort by many faculty. And so on some occasions, that has a
financial component, but that’s a very small subset.
Tacey Ann Rosolowski, PhD
[00:23:45]
Are there any particular qualities that, when you’re looking at institutions overseas, are there particular qualities that they have in common that make them a good opportunity to partner with MD Anderson?

Ethan Dmitrovsky, MD
[00:24:01]
Well, I think that that’s just such a fine question. I think it’s such a germane question, because we are not seeking to have relationships just to have relationships. So by your very question, I think it raised — one of the key elements that’s required in that is a sensitive partnership, that in a sister institution, and with the memorandum of understanding, then they become more closely entwined with the fabric of MD Anderson. And so we don’t want to see people trying to take advantage of the name without taking advantage of the content that it’s produced.

So as we have a sense of social responsibility, we look for partners who are committed to our mission, which is to consign cancer to history in Houston, Texas the nation, the world. And they are open-minded to a partnership, that they don’t intend to commercialize the relationship, just as we generally don’t tend to commercialize the relationship. And so that sense of partnership is a mutual respect, but driven by the mission.

So that’s one. The other is that we see an opportunity where our relationship with their sister institution can benefit the citizens of the community, that would be reaching out to. So as an example, I just cited a few minutes ago, the Hunan Cancer Center is not our first relationship in China, but it’s the first one in the center of China. So the reach of the Hunan Cancer Center touches a number of lives that approximate the entire population of the United States. And so we have longstanding collaboration with the center because — come on in please. (interruption; inaudible) From our president. I have to take this [call].

Tacey Ann Rosolowski, PhD
[00:26:29]
I’ll pause just for a moment. Yes. I just want to say, for the record, we’re terminating the interview about six minutes after 11:00, as Dr. Dmitrovsky has something to tell me.

Ethan Dmitrovsky, MD
[00:26:39]
So I’ll see you when.

Tacey Ann Rosolowski, PhD
[00:26:41]
Absolutely.

Ethan Dmitrovsky, MD
[00:26:42]
I’ll tell —
Ethan Dmitrovsky, MD
Session Four: 7 July 2015

Chapter 00D
Interview Identifier

Tacey Ann Rosolowski, PhD
[00:00:00]
All right, we’re recording, and it is about four minutes after 10:00 a.m. on July 7th, 2015, and I’m in the office of the Provost in Pickens Tower, talking to Ethan Dmitrovsky. This is our fourth session together. We were cut off kind of abruptly yesterday because of a phone call you had to deal with.
And yesterday, you were talking to me about the Hunan Cancer Center —

Yeah.

— and how it was very centrally located in China, which provided an opportunity to have an impact on quite an enormous population. So I wondered if you could, if you remember —

Yeah, I do remember that, and the Hunan Province, from a public health point of view, the lives that one could touch approximate the entire population of the United States, because it’s so centrally located in China. And it is an institution that we have close ties with, because a number of faculty members have come from that institution as visitors or as — were educated there. And in particular, we have close ties in the radiation oncology group. So I was discussing yesterday, when we met, about the bidirectional nature of the sister institution relationships, and I cited as an example that, if one were to consider the public health devastating effects of tobacco usage in China and the technology that has been developed here by a number of faculty members and behavioral science — like Alex Prokhorov and Paul Cinciripini and Ellen Gritz and others — that we might be able to disseminate our best practices to Hunan Province,
so that we can not only prevent people from starting smoking in the first place, but to have them cease smoking once they’ve begun, and in particular, how we could perhaps enter the school system and educate the community. And I discussed yesterday how I had the opportunity to meet the Minister of Health for Hunan Province and spoke to him about this prospect.

At the same time, yesterday, I discussed the bidirectional nature of our collaborations with sister institutions, that we don’t want to be presumptuous to say that we only have something to offer — we don’t have anything to learn. And I cite as an example, when I visited Hunan Cancer Center, that I went on rounds in many services — the breast surgical service, the plastic surgery service, and quite interestingly, intriguingly, their traditional Chinese medicine service, which is innovative in a number of ways. One is they have a distinguished faculty that’s revered in the country, in the space of traditional Chinese medicine, but what was distinctive — not unique — is that they had a shared inpatient and outpatient service, where both Western and Eastern medicine experts partnered. And this seems to be something that we can learn from, perhaps in that one example, but more generally, the idea of partnership, that you bring together experts of different disciplines to address a common problem. Really, I have a strong memory of a patient with pancreatic cancer who was on this shared service, who came in with refractory pain and was managed dually by Western and Eastern medicines, to the benefit of the patient. And they wanted me to see that patient, and I talked to the patient in my rounds, and he clearly made it evident that his pain had been managed far better.

To me, that’s an example of partnership between disciplines, and that’s something we can clearly learn from an institution like the Hunan Cancer Center, that they are able to bring seemingly disparate experts together in an effective way. And I think that’s a lesson we can learn, because the future of science that I talked about yesterday, to my mind, is about partnership, interdisciplinary collaboration, and discoveries will be made in that area between disciplines, where the distinctions between fields are somewhat blurred. And we always want to learn how we can have a community that welcomes interdisciplinary collaboration, so that’s where I thought there was a lot that we could learn from our partners.

Tacey Ann Rosolowski, PhD
[00:05:09]
I have another question. It may be a little bit more subtle dimension of those intercultural collaborations, because I know you were deeply impacted by your experiences in Cambodia —

Ethan Dmitrovsky, MD
[00:05:19]
Yeah.

Tacey Ann Rosolowski, PhD
[00:05:20]
— a number of years ago.

Ethan Dmitrovsky, MD
[00:05:21]
Well, in — right on the Cambodian border.
Tacey Ann Rosolowski, PhD
[00:05:23]
Oh, OK.

Ethan Dmitrovsky, MD
[00:05:24]
Because — I was three kilometers in from the border, because the Vietnamese military were in Cambodia at that time. It was unsafe to cross the border, so I was in a town called Aranyaprathet, which was just three kilometers from the Cambodian border.

Tacey Ann Rosolowski, PhD
[00:05:40]
Thanks for the —

Ethan Dmitrovsky, MD
[00:05:42]
Yeah.

Tacey Ann Rosolowski, PhD
[00:05:43]
— the correction. I misremembered that.

Ethan Dmitrovsky, MD
[00:05:44]
I made that clear when we spoke before, yeah.

Tacey Ann Rosolowski, PhD
[00:05:45]
Yeah, yes, and I was reading my notes quickly and didn’t pick up on that detail.

Ethan Dmitrovsky, MD
[00:05:49]
No, no worries.

Tacey Ann Rosolowski, PhD
[00:05:50]
So — but you were clearly —
Ethan Dmitrovsky, MD
Interview Session: 04
Interview Date: July 07, 2015

Ethan Dmitrovsky, MD
[00:05:54]
We did care for Cambodian refugees, and they were called “displaced persons” rather than “refugees,”
because under UN laws, there are different regulations. A displaced person has fewer rights than a
refugee, so the Thai military called them “displaced persons,” in order for them not to have the rights that
the UN — so sad history, yeah.

Tacey Ann Rosolowski, PhD
[00:06:22]
Wow. You get more under— you get really more understanding at politics back home. But the theme I
wanted to talk about just a bit was that — clearly, that experience had a deep impact on you —

Ethan Dmitrovsky, MD
[00:06:33]
Yeah.

Tacey Ann Rosolowski, PhD
[00:06:34]
— made you aware of all kinds of things —

Ethan Dmitrovsky, MD
[00:06:35]
Yeah.

Tacey Ann Rosolowski, PhD
[00:06:36]
— enlivened sensitivities that you probably didn’t realize —

Ethan Dmitrovsky, MD
[00:06:37]
Yeah, wouldn’t have had otherwise.
— and I’m wondering, what kind of opportunities do these relationships with global sister institutions offer, do you think, for the faculty? And how can that kind of experience deepen or make more subtle a researcher’s practice?

Ethan Dmitrovsky, MD

I guess the first truth that I’d like to talk about is that cancer, sadly, is a problem for all humanity. It’s not an American problem. We were just speaking about Hunan Cancer Center — it’s not a Chinese problem. It’s a problem for all humanity, and that may be a truth that strikes home less than we think. But oftentimes, when I’m in a meeting of staff and faculty, I’ll simply ask, “Is there anyone in this room who hasn’t been touched by cancer, either with personal diagnosis, a diagnosis in their family, or having a dear friend touched?” And because half the men in the United States and a third of the women will personally receive a cancer diagnosis in their lifetimes, I — there’s hardly a meeting that I go to where people say, “I’ve never been touched.” I think that that truth is also true for faculty. And my personal view is that if we can recognize that cancer is a problem that touches all of us — whether we’re a cancer doctor or a nurse clinician or a physician assistant or a frontline nurse — that this is extraordinarily meaningful work that we’re fortunate to have as our personal charge or mission every day, then we can broaden our perspective and align it more closely — align our personal perspective with the institutional objective to
confine cancer to history in Houston, Texas, the nation, and the world. All of those are worthy goals, and I would submit that people are engaged, empowered by worthy goals.

So when I was just, as an example, at Hunan Cancer Center, we had a number of faculty members who joined us at the event and went on rounds with the doctors. And they were touched by the commitment that the physicians and the nurses and the staff at Hunan Cancer Center had to learn those practices, in order to have a sense of social responsibility to advance the health of the citizens of Hunan Province. Very few of us would have a tin ear to such an experience, and it is valuable for a faculty member here to have that experience, because it allows you to focus your attention on what’s important, which is to do everything in our personal power to reduce the cancer burden in Houston, in the state of Texas, in our nation, and worldwide. And in a sense, there are only a few institutions that would have such a possibility, so we are so fortunate to have meaningful work, but we’re even more fortunate to work at a place that has the reach, that could affect the health [of cancer patients] far beyond our campus.

Most people respond to a sense of social responsibility, because very few of us our in these positions other than for passion for the work. And sometimes, we don’t forget our passion, but the passion gets not front in our mind when the day to day reality of delivering cancer care — the bureaucracy associated with that and with the conduct of clinical trials and with the process of writing grants — sometimes gets in the forefront of our mind’s eye. But to try to bring that passion forward is helpful to our whole community, I would respectfully submit.
Chapter 20

Addressing Perceived Conflict of Interest

B: Institutional Processes;

Story Codes
B: MD Anderson Product Development and IP;
D: Ethics;
B: Institutional Processes;
B: Devices, Drugs, Procedures;
B: MD Anderson Culture;
B: Institutional Mission and Values;
B: The Business of MD Anderson;
B: The MD Anderson Brand, Reputation;
D: On Texas and Texans;
C: Healing, Hope, and the Promise of Research;

Tacey Ann Rosolowski, PhD
[00:11:45]
Well, I had another topic I wanted to follow up on from yesterday. And this is a follow-up on your mention of ZIOPHARM. Is that how —

Ethan Dmitrovsky, MD
[00:11:58]
ZIOPHARMA.

Tacey Ann Rosolowski, PhD
[00:11:59]
ZIOPHARM Onco—

Ethan Dmitrovsky, MD
[00:12:00]

Tacey Ann Rosolowski, PhD
[00:12:03]
ZIOPHARMA, OK. And I looked that up online actually, and I found “ZIOPHARM Oncology,” but that’s a different company?

Ethan Dmitrovsky, MD
[00:12:10]
Um, I’m not sure if it’s a different company, yeah.
OK. OK, all right. Well, I’ll double-check that with you later when I’m doing notes. And the issue that piqued my interest was when you were saying you were working on some issues of conflict of interest.

Ethan Dmitrovsky, MD

[00:12:26]

Yeah.

Tacey Ann Rosolowski, PhD

[00:12:27]

And that’s —

Ethan Dmitrovsky, MD

[00:12:28]

So our public institu— I’m sorry. Finish your thought.

Tacey Ann Rosolowski, PhD

[00:12:30]

Well, I just wanted to kind of set the context.

Ethan Dmitrovsky, MD

[00:12:33]

Yeah.

Tacey Ann Rosolowski, PhD

[00:12:34]

And that has been an issue even for the institution. And for individual faculty lives, it’s clearly an issue. When I was talked to Leon Leach [oral history interview], interviewing him a year and a half ago or so, he was mentioning that given the new model of research that the institution is embracing, he said he thought it was really time to think about new ways to approach this issue. So I wanted to ask you — I don’t know if you can give me details about this particular agreement that you made, but kind of give some perspective on the issue of conflict of interest and how it’s being resolved to facilitate the [inaudible] of research in this new era.
Ethan Dmitrovsky, MD
Interview Session: 04
Interview Date: July 07, 2015

**Ethan Dmitrovsky, MD**
[00:13:15]
So this is a new era that is intensely collaborative, one that will clearly have ever-increasing examples of partnership, both within the academy and beyond the academy, between biotechnology companies and pharmaceutical entities. And what we want to do, because we’re a public institution — we would do it even if we weren’t a public institution — but in an open and transparent way, to take stock of that truth and to learn from best practices. There are several institutions that have developed partnerships for many years. An example would be UCSF. Another example would be Stanford. Another example would be MIT or Harvard, where there have been these partnerships between faculty members, part of the university, and between biotechnology and pharmaceutical companies. And to learn from the best practices, but to embrace the fact, the truth, that we’re a public institution, and we’re held to a very high standard of transparency — because public funds are used to support this institution, we are, understandably — and I embrace this — obliged to have processes and procedures and policies that are transparent, that would be able to be reviewed by any fair-minded person and say, “Well, you’ve made a really good faith effort to address any real or perceived conflict of interest.” So those are the two topics.

**Tacey Ann Rosolowski, PhD**
[00:15:16]
Could you give me, just quickly, some examples of issues that might arise in this new, complex environment?

**Ethan Dmitrovsky, MD**
[00:15:22]
Yeah, I’m going to kind of get there. That’s where I —

**Tacey Ann Rosolowski, PhD**
[00:15:24]
OK, sure.

**Ethan Dmitrovsky, MD**
[00:15:25]
— was going to go next, but I wanted to make two points. One is real conflict of interest, and the other is perceived. So we would never have a real conflict of interest stand, to the best of our ability, that if it were recognized as a real conflict of interest — and we have robust procedures and policies in place to make that addressed right away. We have a robust compliance program. We have a faculty-led committee that reviews all potential conflicts of interest, and any real conflict of interest is really addressed readily by the institutional policies and procedure. Where it becomes germane for us to talk about is perceived conflict of interest, the second topic. And it’s perceived in the mind’s eye of the perceiver, so that perceived conflict of interest could be the perception of an individual faculty member that would want to recuse themselves from being part of a perceived conflict of interest. It might be a team member who wouldn’t want to take part in an activity that would be perceived conflict of interest. It could be a stakeholder in the community. It could be a journalist. It could be UT system leadership. It could be a regent. It could — and there are so many people in a public institution that appropriately can weigh in.
So how do you address a perceived conflict of interest? So I’m not going to talk about the ZIOPHARM example, but I’d like to sort of give you a hypothetical. The reason I don’t want to talk about the ZIOPHARM is that we’re nearly there in addressing it, and I don’t want to tell you something that may not be chiseled in stone as a way. But let me give you a very tangible example. Many times in the discovery cycle of moving a finding from the bench to the — from the lab bench to the clinic, there are moments where more discovery would benefit a discoverer. So if you find, as an example, a new therapeutic target — “target” in this sense means a protein or a receptor or a surface, growth factor receptor that had been uncovered by a scientist or a physician-scientist or a physician as an attractive target — it might take a few years of work to validate whether you have a drug that could affect the target, whether that drug would be safe to administer, whether the drug actually tracks with the pathway that has been uncovered, and whether an agent that had been discovered would be safe to administer to patients from the toxicology point of view. And all that work needs to go on before there’s ever a consideration of moving a drug into a patient population. That would be called a phase 1 clinical trial.

Sometimes, there’s a value to accelerate the discovery, to actually put your energies, to be confident that that drug target makes sense to affect benefits for patients by spending some time doing more discovery and more science. Many pharmaceutical or biotechnology partners don’t have the resources to fully fund that discovery, and an institution might say, “Well, we’ll partner with you.” I’m giving you a hypothetical. This gives you a pretty good hypothetical example. So if the institution partners — because you may have a small biotechnology company that can only help refine by more discovery so much, then the institution could be viewed as being in perceived conflict of interest, in moving forward in the clinical development of that compound. And these are the kinds of scenarios that are really germane to perceived conflicts of interest. So how could you recuse the institution from being perceived as not acting in an impartial way?
So if you were to move forward in the clinical trial, I think it would be important to disclose that to any — that fact — to any patient who might consider entering onto the trial, to just transparently say, “Here’s how this drug is being developed. It’s being co-developed.” And then, to give you some context, if that weren’t co-developed, then maybe that drug might not ever see the light of day. So given the choice between never seeing that discovery potentially help patients and then having a path forward to sharing the development costs makes a logical sense. But it would make sense to disclose that. It would also make sense not to have any principal investigator who might personally benefit, having been a co-discoverer, to have any role in the trial. So you would have a firewall, and that would be a good response to — and disclose this to any patient who might answer — to say, “No one would personally benefit from this trial — because they might have a patent that they would hold that might benefit from discovery — should have any role in the trial.” And should that trial even be reviewed by the institutional IRB, should there be a separate IRB that would look at those trials so that no member of the community would play a role? And maybe that IRB would say, “Well, you shouldn’t even conduct that study at this institution.” Maybe you would want to have a completely separate institution and their separate IRB review. And shouldn’t you engage an ethicist, so that any patient concerned can be impartially and independent at the system, unassociated with the institution, could be an impartial party that could answer any questions raised by any party — external, internal, patient, UT system — and not have that person associated with the institution. Doesn’t that begin to address perceived conflict of interest? So we would never tolerate or accept a real, but in this changing world, there are many perceived.

So let me go beyond that. What if there’s a scenario where there is some commercial advantage that comes back? So if you put in all of these safeguards, how do you address the perceived conflict of interest that there’s a piece of equity of intellectual property, policy that there’s a piece that goes to the institution? How do you recuse the institution from any real or perceived conflict of interest? Shouldn’t you have a robust plan in place before any study is done, where there are safeguards — maybe a blind trust, maybe an independent panel that would review? But most importantly, that you decide in advance that — as if, for instance, maybe those funds could be used as an engine of discovery that would go right back to the faculty, so that more discoveries could be made. And how do you put in place a process and procedure where maybe those funds would never be under the — would certainly never be under the institutional funds. There are funds that would go to the inventors. I’m talking about the institutional conflict of interest. Maybe you could put in policies and procedures where there would be no institutional view that could, per se, have a choice of where those funds would go. You would have a peer review panel.

And this is what I’m talking about. All of these — this hypothetical — would be so that it would pass a fair-minded review of any internal, external, government agency, state agency, that we would have a transparent process, and then to disseminate those policies and procedures. And so not so long ago, these were topics that didn’t come up. But now, because of the collaborative nature of science and medicine, they do come up. And I wanted to say — but that’s part of our social contract, right? Our social contract is to do everything we can to confine cancer to history in the city of Houston, the state of Texas, the nation, and the world, and it’s part of our charge. So we must embrace that responsibility, but that would be hypothetical.
Tacey Ann Rosolowski, PhD
[00:26:30]
I’m also thinking, too, putting those practices in place — it helps move the institution, the identity of an institution, into the future. There’s a kind of new model for dealing with ethical dilemmas. They have been thought out. That’s part of the institution stewarding its movement into a new environment.

Ethan Dmitrovsky, MD
[00:26:50]
Right, and not only is your point — it’s an excellent point and a very appropriate point, but let’s look at it from another point of view. So we’ll do everything in our power to address a real or perceived conflict of interest, and what if we’re successful? So that’s the vulnerability of — every decision you make has risks and benefit. One of the vulnerabilities is that the good name of the institution might be compromised if you don’t have robust policies and procedures. So we’re making a good faith effort to address that.

Now, let’s look at the flipside. What’s the opportunity? Well, the opportunity is that we could serve the city of Houston and the state of Texas ever more so, because if we are able to — through this cycle of discovery — to move a discovery from the bench to the beside and ultimately into the community, then we will change practice for the benefit of cancer sufferers. That’s a real, important goal. But at the same time, we might be able to see it foster — advance a larger community of biotechnology and pharmaceutical entities to be in the city of Houston, in the state of Texas, that would be able to do more discoveries that will improve the public health, and at the same time become a source of employment and revenue for Houston and Texas. And that would be a social responsibility we would have to spawn new companies, biotechnology companies, that would create a vibrant community of discovery here in Texas. And this has already been accomplished with great success in Boston, in Cambridge, Massachusetts, in the Bay Area, and wouldn’t it be wonderful if we could accomplish that in the heart of the country? And isn’t that part of our social contract?

Tacey Ann Rosolowski, PhD
[00:29:20]
Absolutely. John Mendelsohn, when I spoke with him, was talking about the dream he had had in developing South Campus, hoping that that would be a center —

Ethan Dmitrovsky, MD
[00:29:31]
Yeah.

Tacey Ann Rosolowski, PhD
[00:29:32]
— and the economy didn’t enable that —

Ethan Dmitrovsky, MD
[00:29:35]
At that moment in time.
Tacey Ann Rosolowski, PhD
[00:29:36]
— at that moment, but it seems like the moment has come to think about that as part of the institution’s vision again.

Ethan Dmitrovsky, MD
[00:29:42]
Well, not only is Dr. Mendelsohn’s vision an appropriate one, but — and perhaps, as you just said, because of health economics being in a place in its history where we need to be ever more effective and efficient and more cost-effective, then new discoveries may have another benefit of taking a very daunting cancer problem that may have had a pressing need for improved treatments to move into more effective treatments and will reduce the cost of that care, that we need to do all we can to drive down the cost of care, and discovery is an important tool.

Tacey Ann Rosolowski, PhD
[00:30:33]
Mm-hmm. Very important point, yeah.

Ethan Dmitrovsky, MD
[00:30:36]
So we need to, as an institution, accept our responsibility to do all we can, to use every tool at our disposal to improve the lot of cancer sufferers. And the cycle of discovery — eventually, that side does require, oftentimes, partnership with biotechnology and pharmaceutical partners, and so we need to have robust systems and policies in place to pass the real or perceived conflict of interest. I hope that scenario made sense.

Tacey Ann Rosolowski, PhD
[00:31:13]
Oh, it does. Thank you very much for responding so fully, because I think that will be a really useful —

Ethan Dmitrovsky, MD
[00:31:19]
Yeah.

Tacey Ann Rosolowski, PhD
[00:31:20]
— a useful addition to understanding what’s happening at the institution.

Ethan Dmitrovsky, MD
[00:31:23]
And please use the word “hypothetical,” because I don’t want a particular —
Tacey Ann Rosolowski, PhD  
[00:31:26]  
Sure.

Ethan Dmitrovsky, MD  
[00:31:27]  
— company to be presented, because it’s — in many cases, we want to be able to assure that people can discuss with us their needs in a private way. I don’t want to attribute it to any particular company.

Tacey Ann Rosolowski, PhD  
[00:31:49]  
Absolutely. No, no, you were very clear about that, and I just wanted to again mention — you’ll have an opportunity to review your —

Ethan Dmitrovsky, MD  
[00:31:55]  
Yeah, sure.

Tacey Ann Rosolowski, PhD  
[00:31:56]  
— transcript, and if you feel that’s not been clear in any way —

Ethan Dmitrovsky, MD  
[00:31:58]  
No worries, thank you.

Tacey Ann Rosolowski, PhD  
[00:31:59]  
— you’ll have an opportunity to make an addition to that.

Ethan Dmitrovsky, MD  
[00:32:01]  
Good.
Chapter 21
The Next Ten Years: Goals for MD Anderson Research and Faculty
B: Building the Institution;

Story Codes
B: MD Anderson History;
D: Business of Research;
D: On Research and Researchers;
D: Understanding Cancer, the History of Science, Cancer Research;
C: The Institution and Finances;
C: Research, Care, and Education;

Tacey Ann Rosolowski, PhD
[00:32:02]
Well, I know that — I really didn’t want to take the entire hour this morning, because I know how busy you are, but I wanted to ask you just a final question, really —

Ethan Dmitrovsky, MD
[00:32:10]
Yeah.

Tacey Ann Rosolowski, PhD
[00:32:11]
— about your vision for developing the faculty in the next, say, five to ten years, and perhaps the research portfolio, as well, of the institution.

Ethan Dmitrovsky, MD
[00:32:21]
Right, so let me touch on the second aspect of your question first, which is the research portfolio. We very much want to see the NIH budget increased to find all scholarship for all diseases, including cancer. And the NIH budget, as you know, has been flat for a number of years, hence the purchasing power of federal dollars has decreased, such that many faculty at MD Anderson and our peer institutions feel under real pressure to support their scholarship. So as we will continue to do all we can to advocate for more federal funding for the NIH and NSF and all of the agencies that support science in America, we do need to appreciate that, given the economic realities of government with decisions made regarding sequestration, that we cannot solely depend on the federal government, so that, reality in hand, we must redouble our efforts to obtain other sources of funding. Now, we’re most fortunate to have the strong support of the UT system and the state of Texas to provide innovative sources of support for faculty members already here or recruited here. As examples, the CPRIT Program or the UT Stars Program, and we’re incredibly grateful and fortunate to have that support. And that support has allowed us to continue to recruit the best faculty and retain the best faculty and provide those faculty members already here a way to complement their federal funding.
But at the same time, we need to go even beyond that, and I spend time meeting with strong supporters of the missions of MD Anderson to advocate for them to consider, in their philanthropic thoughts, to endow programs that will support our faculty. And we’ve had a fair amount of success in the last few years of gifts that have been focused on our faculty. And at the same time, we’re having conversations with donors who could endow training programs, who could endow fellowships. And because we’re fortunate to be so strongly supported by many stakeholders, who either they themselves have been touched by cancer or their family — remember, I said this is a problem for all humanity, and that’s true whether you’re a donor or not — that our community of stakeholders and supporters seems really receptive. So we have announced a number of wonderful gifts that donors have made possible for our faculty. We hope to announce others. So that would be a source of support that I see as crucial in growing. The Moon Shots program is another source of support scholarship of our faculty, and that program is really on accelerating discoveries from the bench to the bedside, and we’re trying to focus on those discoveries that would change practice. When you change practice — that becomes a wonderful engine to apply for grants from foundations and federal sources. And so what we’re hoping is that although seeded with philanthropy, it would provide the credible data needed to compete [for federal funding].

And I guess the other aspect that I wanted to talk about is that if we do commercialize some of our intellectual property, that a portion of it would be returned as a source of support for faculty. We need to have a more holistic approach. We cannot only expect the federal funds to support our scholarships. We can’t only expect philanthropic funds to support our faculty. We need to have a multi-pronged approach, and this multi-pronged approach is one that will lead to a diverse and vibrant source of funding for faculty in years ahead, because we oftentimes try to make these endowed funds, and so — because the corpus of an endowed fund can’t be touched, only the [distribution from the endowment] — that over time, these sources will become ever more useful tools to support our faculty. So I’m pretty hopeful that this multi-pronged approach will be helpful to our faculty, and I think that would also attract many new faculty to come here, because very few institutions are taking such a holistic approach to support their faculty.
Chapter 22
The Next Ten Years: Stewardship and Building A Culture of Care For Faculty and Staff
B: Building the Institution;

Story Codes
B: Building/Transforming the Institution;
B: MD Anderson Culture;
B: Institutional Mission and Values;
B: The MD Anderson Brand, Reputation;
C: Leadership;
C: The Value of the Oral History Project;
C: Research, Care, and Education;

Tacey Ann Rosolowski, PhD
[00:39:05]
Are there any specific personal goals that you have for your work here, at MD Anderson, in the next several years?

Ethan Dmitrovsky, MD
[00:39:20]
It is a real privilege for me to have this position, and I feel a tremendous sense of stewardship and responsibility to do all I can, to really give my all for the institution, because its work is so important to all of us, and each of us will either personally receive a cancer diagnosis or their immediate member or a dear friend. And because this is a problem that we all share, anything that I can do in my position to help advance the powerful mission of MD Anderson to confine cancer to history in Houston, Texas, the nation, and the world, is what I want to do. We’re guided, aided by having wonderful core values: discovery, integrity, caring. And I just wanted to touch on one of our core values, caring. We care for patients, and I receive calls regularly from people at extraordinarily vulnerable moments in their life. They just received a cancer diagnosis. They don’t know whom to turn to. And I am so grateful, and frankly impressed, by the fact, the truth that whenever I reach out to one of my colleagues, within the shortest time possible — humanly possible — they’ll come to the aid of the patient.

In a large institution of 20,000 employees, a complex institution with many important responsibilities, sometimes seemingly competing goals — because if you invest in one area, you might not have the ability to invest in another area — if you look at the institution with all of its social responsibility and complexity in reaching those goals, I’d like to see us care for each other with the same remarkable level that we do for those who come here for their care. And sometimes, institutions forget about that. I like to say, by analogy, MD Anderson — although remarkably fortunate to have beautiful buildings — is not about our buildings, but who occupies this place, and I’d like us to keep that fresh in our mind’s eye, and that we should have a caring environment for patients, as well as those who serve them. And I’d like to see that being fresh in our mind’s eye, because MD Anderson is not about our buildings, but who occupies the place. The provost office is involved in recruiting all faculty, including leaders that — I
would like to see us continue to recruit leaders who are servant leaders, who care more for others than themselves, who are, in their own areas of scholarship, distinguished scholars, but who are also emotionally intelligent leaders, and to find those rare individuals that have both virtues that they bring to leadership, because leadership does matter. That would be my second goal, to bring in leaders.

The third goal is to provide an ever more robust support system for our faculty. We put many support systems in place, ways of guiding them in grant writing, in mentorship, providing coaching opportunities for academic leaders to provide new sources of support for junior faculty, for senior faculty. And we want to continue to do all we can to aid our faculty, because their mission is importance. So those are the three things that I would set.

_Tacey Ann Rosolowski, PhD_

[00:44:57]
Is there anything else you’d like to add, Dr. Dmitrovsky?

_Ethan Dmitrovsky, MD_

[00:45:00]
I just wanted to say thank you for this important endeavor. The fact that we have the confidence as an institution to reflect on our history and to consider our future is very healthy. It is, in a sense, part of the strategic planning process for us to consider where we want to go in the future. We do need to reflect on where we’ve been. As someone who is a frequent reader of biographies and history, I have a personal appreciation for the value that history has, so that we can learn from history and not — to not have what was famously said, “Those who fail to remember history are at risk of repeating it.” Now, that was meant about negative examples of history. I do believe there are many positive examples, and we want to learn from the positives.

_Tacey Ann Rosolowski, PhD_

[00:46:14]
It’s helpful to know what you’ve done right, so you can do it again.

_Ethan Dmitrovsky, MD_

[00:46:18]
That famous quote has emphasized the downside, but I think it should also emphasize the positive, yeah. Thank you so much for what you’ve done.

_Tacey Ann Rosolowski, PhD_

[00:46:29]
And thank you very much for your time, Dr. Dmitrovsky. I really do appreciate your —

_Ethan Dmitrovsky, MD_

[00:46:33]
Good.
Ethan Dmitrovsky, MD
Interview Session: 04
Interview Date: July 07, 2015

*Tacey Ann Rosolowski, PhD*
[00:46:34]
— your participation.

*Ethan Dmitrovsky, MD*
[00:46:35]
Thank you. I’m sorry that we had a little disjointed few sessions, but thanks.

*Tacey Ann Rosolowski, PhD*
[00:46:39]
That’s quite all right. And I am turning off the recorder at about ten minutes of 11:00 a.m.