

Raymond Nelson DuBois, Jr., MD, PhD

Interview 100

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Interview Session: 01
Interview Date: November 14, 2018

Interview Session One

Chapter 00A

Interview Identifier

T. A. Rosolowski, PhD

[01:00:00]

I am Tacey Ann Rosolowski, and today is the 14th of November, 2018, and I'm in the office of Dr. Raymond DuBois, at the Medical University of South Carolina in Charleston, South Carolina, and this is my hundredth interview subject, and you kindly agreed to be that person. That's pretty exciting and I got a trip to Charleston, so how lovely is that?

[00:00:26]

Raymond DuBois, MD, PhD

[00:00:27]

That is exciting.

[00:00:28]

T. A. Rosolowski, PhD

[00:00:28]

It is exciting. So I wanted to thank you.

[00:00:29]

Raymond DuBois, MD, PhD

[00:00:30]

Sure.

[00:00:30]

T. A. Rosolowski, PhD

[00:00:30]

Because I know how valuable your time is. Just, I wanted to start out saying for the record that since 2016, Dr. DuBois has served as dean of the Medical University.

[00:00:46]

Raymond DuBois, MD, PhD

[00:00:46]

Dean of the College of Medicine at the Medical University.

[00:00:49]

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T. A. Rosolowski, PhD

[00:00:49]

Oh, okay, all right. However, from 2007 to 2012, Dr. DuBois was at MD Anderson, serving as provost and executive vice president, and I actually found out you were the first person to be called a provost. Before then, it was chief academic officer.

[00:01:05]

Raymond DuBois, MD, PhD

[00:01:05]

I was the founding provost, that was quite an honor.

[00:01:09]

T. A. Rosolowski, PhD

[00:01:09]

That's pretty cool. So today, I've said today is November fourteenth. The time is about five minutes after three and again, I wanted to thank you.

[00:01:18]

Raymond DuBois, MD, PhD

[00:01:18]

You're welcome.

[00:01:19]

T. A. Rosolowski, PhD

[00:01:19]

This is pretty neat.

[00:01:20]

Raymond DuBois, MD, PhD

[00:01:20]

Thanks for coming to Charleston.

[00:01:21]

T. A. Rosolowski, PhD

[00:01:21]

Well, it's actually a pleasure. I had a chance to walk around a bit today and so that was—I've never been before.

[00:01:26]

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Raymond DuBois, MD, PhD

[00:01:25]

It's lovely. Unfortunately, it's a little cool today.

[00:01:28]

T. A. Rosolowski, PhD

[00:01:29]

Oh. I'm from New York State, this is lovely for me, though I have to say, I heard on the news that it actually snowed a little bit in Houston yesterday.

[00:01:38]

Raymond DuBois, MD, PhD

[00:01:38]

Oh my goodness.

[00:01:39]

T. A. Rosolowski, PhD

[00:01:39]

And I thought I missed the New York ... or missed the snow in Houston, so that, that's kind of sad.

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Chapter 01

A Texas Family in a Small Town

A: Personal Background;

Codes

A: Character, Values, Beliefs, Talents;

A: Personal Background;

A: Influences from People and Life Experiences;

C: Discovery and Success;

C: Formative Experiences;

T. A. Rosolowski, PhD

[00:01:39]+

Well I wanted to start in the usual oral history place and ask you to tell me where you were born and when, and tell me a little bit about your family background.

[00:01:54]

Raymond DuBois, MD, PhD

[00:01:54]

Sure. I was actually born in South Texas, I'm a native from Texas. My family spent most of their time in Runge, Texas, R-u-n-g-e, which is a small town of about a thousand people, in South Texas. I was born in Sinton, Texas, which is closer to the coast, because my father worked in the oil business and he was working down there at the time, and so we were living there when my mom delivered me, in Sinton.

[00:02:27]

T. A. Rosolowski, PhD

[00:02:29]

I'm sorry to interrupt you, but has your family, for a long time, lived in Texas?

[00:02:34]

Raymond DuBois, MD, PhD

[00:02:34]

Yeah, I think for the last several generations.

[00:02:37]

T. A. Rosolowski, PhD

[00:02:37]

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Wow, okay.

[00:02:38]

Raymond DuBois, MD, PhD

[00:02:38]

At least five or six generations. My family name is French and pronounced, “Doo-Bwa,” you know. [Although we pronounce it Doo-Boys.] Since I started traveling internationally, I get lectured all the time about the right pronunciation. So, the family originally migrated from France, Paris, France, to New York, and then from New York to Alabama, and then Alabama to Texas. They ended up there because of very cheap land prices that occurred back in the mid-1800s.

[00:03:11]

T. A. Rosolowski, PhD

[00:03:11]

So was it an agricultural family, were they farmers?

[00:03:14]

Raymond DuBois, MD, PhD

[00:03:15]

Well, it was an assortment. I remember my grandfather was in the insurance business, but we’re mostly a ranching and farming family and small business family.

[00:03:26]

T. A. Rosolowski, PhD

[00:03:27]

It’s interesting, I mean the big migration waves didn’t come from France, I mean more Eastern Europe, Germany.

[00:03:34]

Raymond DuBois, MD, PhD

[00:03:34]

Yeah. Well this happened fairly early on, around 1811, and essentially, I mean I guess you could classify the family as a bunch of draft dodgers, because Napoleon was drafting everybody into the army or whatever forces he had, to go fight Waterloo, and so a lot of people were leaving to try to avoid getting drafted into the military under Napoleon. So that was probably a smart thing, as it turns out.

[00:04:04]

T. A. Rosolowski, PhD

[00:04:04]

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No kidding. You don't want your own private Waterloo. [laughter]
[00:04:08]

Raymond DuBois, MD, PhD

[00:04:09]

Exactly.

[00:04:10]

T. A. Rosolowski, PhD

[00:04:11]

All right, so it ends up that your father was in the oil business.

[00:04:15]

Raymond DuBois, MD, PhD

[00:04:16]

He worked in the oilfield as one of sort of the laborers there. During those years, they did a lot of drilling there, and there's been a resurgence since then, you know, so that he was one of the oil rig hands that did some of the labor there. [They call them roughnecks.] Eventually, he got injured on the job and had to do other things, because it's pretty hard work at these oilfields.

They didn't really have a lot of safety regulations or anything like that.

[00:04:44]

T. A. Rosolowski, PhD

[00:04:44]

Very physical work.

[00:04:45]

Raymond DuBois, MD, PhD

[00:04:45]

Right.

[00:04:45]

T. A. Rosolowski, PhD

[00:04:45]

What was your father's name?

[00:04:46]

Raymond DuBois, MD, PhD

[00:04:46]

Same name, he was senior and I'm junior.

[00:04:49]

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T. A. Rosolowski, PhD

[00:04:50]

And your mother's name?

[00:04:51]

Raymond DuBois, MD, PhD

[00:04:51]

My mother's name is Rose Elaine.

[00:04:53]

T. A. Rosolowski, PhD

[00:04:54]

Rose Elaine?

[00:04:54]

Raymond DuBois, MD, PhD

[00:04:55]

Yeah.

[00:04:55]

T. A. Rosolowski, PhD

[00:04:56]

And do you have any siblings?

[00:04:57]

Raymond DuBois, MD, PhD

[00:04:58]

I have a brother and three sisters.

[00:05:02]

T. A. Rosolowski, PhD

[00:05:02]

And your brother's name?

[00:05:03]

Raymond DuBois, MD, PhD

[00:05:04]

Kenneth.

[00:05:04]

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T. A. Rosolowski, PhD

[00:05:05]

And your sisters?

[00:05:07]

Raymond DuBois, MD, PhD

[00:05:08]

One is Mary Louise and the other is Linda, and then the other is Christine.

[00:05:22]

T. A. Rosolowski, PhD

[00:05:23]

And what's your order in—

[00:05:24]

Raymond DuBois, MD, PhD

[00:05:25]

I'm the second. Well, I had an older brother who actually died right after childbirth.

[00:05:30]

T. A. Rosolowski, PhD

[00:05:30]

Oh, wow.

[00:05:31]

Raymond DuBois, MD, PhD

[00:05:31]

And I don't even know if he was named or not, because it happened so quickly. So I'm, I guess legally third, but the second surviving offspring. Eventually, they moved back to Runge, because that's where my mom's family was from. They're more from Ireland and Scotland, so they're—

[00:05:55]

T. A. Rosolowski, PhD

[00:05:55]

What was her maiden name?

[00:05:56]

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Raymond DuBois, MD, PhD

[00:05:56]

Mixon. M-i-x-o-n.

[00:05:58]

T. A. Rosolowski, PhD

[00:05:59]

Oh, I've never heard that name. Interesting.

[00:06:01]

Raymond DuBois, MD, PhD

[00:06:02]

They have quite a large family in that area too, in Karnes County. It was an agricultural situation and so a lot of people were involved in farming and ranching. As I was growing up, I did a lot of odd jobs; hauling hay, plowing fields and working as a farmhand or a ranch hand. Eventually, during high school, I got heavily involved in the Future Farmers of America, and that's an agricultural based sort of club. So I raised a lot of livestock and showed livestock in the local livestock show, and eventually showed livestock in the Houston Livestock Show and Rodeo in Houston. One of my steers got the grand champion of the local show, and so we took those to Houston. Obviously it didn't get the grand champion of the Houston show, but it did quite well. So I competed for one of those Houston Livestock Show and Rodeo scholarships. At the time, they only awarded four to the whole state, so I got one of those, which really was important and enabled me to go to college, because even though everybody in the family worked, we really were quite poor [], although we didn't realize it at the time. The scholarship did two things. One, it provided financial support, but also it provided sort of outside legitimacy that you know: it's okay, you can go to college and make a go of it.

[00:07:41]

T. A. Rosolowski, PhD

[00:07:41]

Right.

[00:07:42]

Raymond DuBois, MD, PhD

[00:07:42]

None of my family ever graduated from college, my parents didn't attend college, and my father didn't even finish high school. So it wasn't sort of an academically engaged family and I think getting that scholarship really was a critical—looking back on it, it was really a critical time in

my development.

[00:08:05]

T. A. Rosolowski, PhD

[00:08:05]

What were the other dimensions of that time? What else was happening around that period that was so critical to your development, because I'm just thinking about all of the drive and skills that had to come together for you to have this steer to show. I mean, I mean --and people may laugh at it but—

[00:08:23]

Raymond DuBois, MD, PhD

[00:08:23]

No, no, that's a good question because we lived in the community but you know, we had enough land where we could raise livestock. I had friends in school obviously, who had done this, and I thought this is really something fun, you get to go to Houston and be involved in something bigger, and so I had started thinking about this when I was in junior high. What it required was for my dad and me to build the pens, the structures, so that we could have a place to raise these steers. We had to go purchase them from different ranches in South Texas and get the best breed that would be competitive, so you had to be very selective about that and be able to judge which breeds and which offspring were going to do the best in the show. And then we had to make our own feed, and so I had to go purchase grain and hay and other components from farmers, and then take it to a feed store and then make a mix of feed that we can give them, that we thought would be the best to get them in shape and gain the right amount of weight to be competitive in the show.

[00:09:39]

T. A. Rosolowski, PhD

[00:09:39]

So how did you do the kind of research, if you will, to figure all those details out?

[00:09:43]

Raymond DuBois, MD, PhD

[00:09:43]

A lot of that came through the vocational agriculture classes that I took and we got a lot of support from there. There are Ag Science books and other things that we used to come up with the formula for the feed and what the weight gain should be. I had to give them vaccinations and treatments for parasites and all kinds of things, so you learned a lot about what it takes to raise a healthy animal. The other lesson, I think that was important, you have to be around to feed these animals on a regular basis, because even though you're off doing other things, they're going to need to get fed on a regular schedule, so you know, there was a lot of discipline that was

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involved. There's this term now that everybody uses, called grit. You know you have to be gritty? I think in retrospect, I really had to put a lot of perseverance and emphasis on it.

[00:10:44]

The other thing I was involved in, in high school, was almost every sport that the school offered. I played on the football team and the basketball team, tennis and track and you know, all of those things took time for practice and getting ready for the games. I was on a fairly tight schedule to get all of that done, and then be able to keep those animals going.

[00:11:06]

T. A. Rosolowski, PhD

[00:11:07]

Well I'm also thinking you are just not a loner. This is not a story of a guy who's an introvert.

[00:11:15]

Raymond DuBois, MD, PhD

[00:11:15]

Well, you know I am kind of quiet, but I know that it takes a team to get things done. There were times my dad or my mom, they had to feed the animals because I just wasn't there, and so that had to be well planned. Definitely, it takes a team to make it work.

[00:11:33]

T. A. Rosolowski, PhD

[00:11:34]

Yeah, for sure. It's an interesting story, when you were talking about all of the people and things you have to get in contact with in order to get the information to accomplish this goal, I mean that's early teamwork for sure, really, and the sports too obviously. Now academically, what was going on? What was your school like in terms of academics?

[00:11:55]

Raymond DuBois, MD, PhD

[00:11:56]

It was a small high school. Actually, I got off to a rough start with school. When I first started, you know one thing about our family was we hadn't really been to kindergarten, I hadn't really done any sleepovers with anybody, and so one day they said, "You've got to go to school," and that was kind of a shock because nobody had really prepared me for that separation. The school was literally within a [block] of our home. It was close-by, and I remember very clearly, going to the first grade and sitting there and getting really anxious and nervous, and then just getting up and walking home.

[00:12:40]

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T. A. Rosolowski, PhD

[00:12:40]

Oh, wow.

[00:12:40]

Raymond DuBois, MD, PhD

[00:12:41]

They had a real hard time keeping me at school and it really caused a lot of consternation from my parents and aunt and the whole schoolteacher group.

[00:12:51]

T. A. Rosolowski, PhD

[00:12:52]

What was that about, the anxiety?

[00:12:54]

Raymond DuBois, MD, PhD

[00:12:55]

I just felt a lot of anxiety. I felt like I wasn't ready for it and so this went on for six months. Finally, I remember my aunt bought me a football helmet or something and she said, "I'll give this to you but only if you stay until the afternoon." So, that sort of enticement worked and I stayed and then after that, sort of got into the groove.

[00:13:23]

T. A. Rosolowski, PhD

[00:13:23]

What was your aunt's name?

[00:13:24]

Raymond DuBois, MD, PhD

[00:13:26]

Necia, Necia Davenport.

[00:13:30]

T. A. Rosolowski, PhD

[00:13:31]

So she kind of know how to appeal to your sports side.

[00:13:34]

Raymond DuBois, MD, PhD

[00:13:34]

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Well, they had tried a lot of things and it just didn't work. You know at the time, I didn't know what was going on, but in retrospect, definitely it was separation anxiety and being in a new environment that I just—and so for our kids, when they were growing up, we got them involved in everything you can imagine, so they were completely ready to go to school when the time came around for that.

[00:14:01]

T. A. Rosolowski, PhD

[00:14:02]

Now in terms of once you got over the anxiety, were there—[Raymond laughs]. Well, I mean that's a big deal, you know? I'm not laughing at it by any means.

[00:14:10]

Raymond DuBois, MD, PhD

[00:14:10]

No it was, it was a big—I can just imagine how the family was reacting, because you know it's against the law if your children don't go to school, so they were—it was not a good thing. I mean they even had the constable over there and he would try to keep me corralled. His name was Albert, and I could slip him pretty easily, so it was crazy. So, I got into the groove and then I really started enjoying school and participating in all the extracurricular activities. I'm sure they still have this in Texas, but there was a University Interscholastic League that you could do poetry reading, picture memory. I was on the debate team. I really got engaged in almost all of that stuff and it really—you could develop a network and talk to people from other schools when you had the competitions, and I think it was a really good experience.

[00:15:07]

T. A. Rosolowski, PhD

[00:15:08]

What about in terms of course content? It's interesting that you're talking about all of the stuff you did outside of classes.

[00:15:15]

Raymond DuBois, MD, PhD

[00:15:16]

Our course load was very standard. One thing that I was disappointed with, that they didn't offer a foreign language and I wanted to take Spanish. They didn't have a Spanish teacher and they couldn't convince one to come, so you know it's a fairly small school. I think there were only eighty students in the whole high school.

[00:15:38]

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T. A. Rosolowski, PhD

[00:15:38]

Oh my gosh.

[00:15:39]

Raymond DuBois, MD, PhD

[00:15:39]

And there were only sixteen in my class, and it was the same sixteen that we had through the whole experience, and so there were probably not more than 200 in the whole school, and it went from first grade to twelfth grade.

[00:15:53]

T. A. Rosolowski, PhD

[00:15:53]

So, this is a really small community and obviously a closely knit family. How do you think that affected you later on?

[00:16:04]

Raymond DuBois, MD, PhD

[00:16:05]

It was a stable support structure and I learned the basics. I must say that I think I ended up third or fourth in the class, but in a class of sixteen that's not a lot to brag about, but it was higher than my other family members. I remember my English teacher, Mrs. Wallace. She was spectacular and when she had class, she would spend about ten or fifteen minutes in the beginning talking about world events and what was going on, and what did we think about it, and it really brought another perspective to a very small, rural, faraway town that opened up thinking about what was going on outside of that area. She was from the community, she had lived there all of her life, but she had traveled, and I think she really gave us a different perspective on life that in retrospect, probably affected me a lot more than I realized at the time.

[00:17:10]

T. A. Rosolowski, PhD

[00:17:10]

Mm-hmm. There's something beyond.

[00:17:12]

Raymond DuBois, MD, PhD

[00:17:12]

Yeah. So you know, I did take advanced calculus and other things, but you know I didn't do anything spectacular. I remember putting in a competition for the Science Fair, and it was something that actually my mother and I worked on. I wanted to do something in water

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filtration, and so we came up with a device that was able to filter dirty water and make it into clean water. I thought it was great. It didn't do well at the contest, but still, going through that was a good exercise I think.

[00:17:51]

T. A. Rosolowski, PhD

[00:17:521]

It sounds like your parents were really involved, I mean your mom involved with this, your dad involved with helping you raise the steers.

[00:17:57]

Raymond DuBois, MD, PhD

[00:17:57]

They were, they were. They were definitely supportive and it was, you know I think it was a good environment to be raised in. I never really thought about it much during the time because you're basically wherever you end up and you don't have any control over it.

[00:18:14]

T. A. Rosolowski, PhD

[00:18:14]

Right. Now, did people talk about going to college?

[00:18:17]

Raymond DuBois, MD, PhD

[00:18:19]

Very few people went. I definitely got curious about it, especially as I got into junior high and high school, and I think going through that water filtration project, I got sort of somewhat interested in science. I had always been interested in Ag science, because of raising the cattle and doing all the things that I had to do. I worked part-time for a veterinarian one summer and got involved in doing large animal care, and so that perked my interest up for that.

[00:18:57]

T. A. Rosolowski, PhD

[00:18:57]

So what did you start imagining yourself doing, you know the whole what do you want to be when you grow up thing.

[00:19:02]

Raymond DuBois, MD, PhD

[00:19:02]

It was pretty clear. I was so heavily involved in FFA and Ag, vocational agriculture, so I

decided I wanted to major in Ag education and become an Ag teacher. So that was the plan and there were several schools in the state that have Ag education programs, but A&M [Texas A&M University] is one that was highly regarded. This is another story that I don't tell much and it's not a big deal, but we did have a high school counselor, but I think he was the person that played the guitar to sing all the Christmas songs at the Christmas gathering, and he really wasn't that well trained in counseling. So I went to him and I said this is what I want to do, and so I need to take some tests to get into college. And he knew I was competing for this Ag scholarship that was very competitive. You had to do a district interview, a regional interview, and then a state interview, and so each one, they weeded out applicants, and we didn't know if I was going to go it but if I did, it required me to go to a school that had an Ag Department. That was one of the stipulations, and it had to be within the state of Texas. So he advised me to take the ACT exam, which is one of the entrance exams, but for A&M, and I told him I wanted to go there, they required the SAT exam. So you know, it got closer and closer to it and they said you got the scholarship and which college do you want to go to, and I went back to the counselor and he says, "Oh, you can't go to that college because you didn't take the SAT exam."

[00:20:50]

T. A. Rosolowski, PhD

[00:20:50]

Oh, no.

[00:20:50]

Raymond DuBois, MD, PhD

[00:20:51]

It was too late to do anything about it, so what I did was I talked to the people at A&M, they said you can do a semester at another college and then just transfer to A&M. So, I did a semester at this—at the time it was called Southwest Texas State, but I think they've changed the name to Texas State College or something. I majored in Ag education. I did really well there, I got all As, and in a way it was probably not a bad transition, because it's a much smaller campus.

[00:21:28]

T. A. Rosolowski, PhD

[00:21:28]

Kind of more like a junior college experience to transition you.

[00:21:31]

Raymond DuBois, MD, PhD

[00:21:29]

Yeah, yeah. It was closer to home and it enabled me to have a chance to get exposed to that collegiate environment and take classes and everything, and so I think it worked out and then I

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transferred right away to Texas A&M and they took me without the SAT exam.

[00:21:47]

T. A. Rosolowski, PhD

[00:21:48]

That's the kind of one door closes, another opens, sort of the counselor did you a favor by being a jerk.

[00:21:54]

Raymond DuBois, MD, PhD

[00:21:53]

I know. I thought, Oh my God, my whole dream is going to be dashed.

[00:21:56]

T. A. Rosolowski, PhD

[00:21:57]

I can't even imagine how upset you must have been.

[00:21:58]

Raymond DuBois, MD, PhD

[00:21:59]

I didn't know anything, my family didn't know anything about these exams.

[00:22:02]

T. A. Rosolowski, PhD

[00:22:03]

Of course not.

[00:22:03]

Raymond DuBois, MD, PhD

[00:22:03]

And I didn't know anything about it. You know I just, I took it, I did pretty well on it, but at the time, they would only take one of them there.

[00:22:11]

T. A. Rosolowski, PhD

[00:22:11]

Wow. That's the classic kind of first generation to college story, I mean you're just, you're

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really at the mercy of people you are calling experts in how to move into this new space.
[00:22:19]

Raymond DuBois, MD, PhD

[00:22:19]

Right, right. So then I learned a lesson, that you probably should question things and make sure that you get a second opinion or something, to make sure people agree.

[00:22:27]

Chapter 02

A World of Research Opens Up at Texas A & M and UT Southwestern

A: Educational Path;

Codes

A: The Researcher;

A: Overview;

A: Definitions, Explanations, Translations;

A: Personal Background;

A: Character, Values, Beliefs, Talents;

A: Influences from People and Life Experiences;

A: Professional Path; C: Evolution of Career;

A: Inspirations to Practice Science/Medicine;

C: Discovery and Success;

C: Formative Experiences;

C: Professional Practice; C: The Professional at Work;

C: Collaborations;

T. A. Rosolowski, PhD

[00:22:28]

Let's see, so you went to Southwest Texas State.

[00:22:33]

Raymond DuBois, MD, PhD

[00:22:34]

In San Marcos.

[00:22:35]

T. A. Rosolowski, PhD

[00:22:35]

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You must have started—in San Marcos.

[00:22:36]

Raymond DuBois, MD, PhD

[00:22:37]

I started in '73. I graduated in '73 and started that summer, and then the next—

[00:22:45]

T. A. Rosolowski, PhD

[00:22:45]

So '74, you transferred.

[00:22:46]

Raymond DuBois, MD, PhD

[00:22:45]

—semester I transferred.

[00:22:47]

T. A. Rosolowski, PhD

[00:22:47]

Yeah. And you, I see that you majored in biochem, so wow, you started getting real academic.

[00:22:55]

Raymond DuBois, MD, PhD

[00:22:55]

Well, actually I transferred in an Ag education major, and then when I got to Texas A&M the whole world opened up and they actually had research. I was doing extremely well in Ag education. I really got all As and everything, but I didn't feel that challenged. I had gotten interested in a research project right after I arrived at Texas A&M, and it turns out, it was just fortuitous but the Department of Biochemistry is in the Agricultural College there, and so I just changed my major to biochemistry. I got involved in that and then eventually joined the honors program and then did a research dissertation with one of the professors there.

[00:23:45]

T. A. Rosolowski, PhD

[00:23:46]

What was your research project you got involved in?

[00:23:48]

Raymond DuBois, MD, PhD

[00:23:48]

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It was on epidermal growth factor, EGF, and actually my job was to purify the growth factor from mouth salivary glands, there's a lot of it in the salivary glands. I learned how to do that and provided it to the lab and then did some experiments on my own, trying to see how it turned on different signaling pathways, but clearly it's heavily involved in cancer and other things.

[00:24:14]

T. A. Rosolowski, PhD

[00:24:13]

Right. And this is really early in those years too.

[00:24:17]

Raymond DuBois, MD, PhD

[00:24:17]

It had just been discovered by this guy Stanley Cohen who was at Vanderbilt [University], and so I used his papers and followed his protocol to purify it.

[00:24:26]

T. A. Rosolowski, PhD

[00:24:27]

Now what did you find so interesting about all that?

[00:24:30]

Raymond DuBois, MD, PhD

[00:24:30]

You know I really love the idea of research and then getting the experience in the lab and doing it. I just, I mean the most amazing thing to me was it allowed you to discover new knowledge that nobody else knew before the moment that you discovered it, and that just, for some reason I really enjoyed that a lot.

[00:24:51]

T. A. Rosolowski, PhD

[00:24:51]

Now what about the practical aspects of doing the lab work?

[00:24:54]

Raymond DuBois, MD, PhD

[00:24:55]

I had to do that after hours and on the weekends. The other thing that happened with the transfer and then changing to biochemistry is I had to pick up a lot of courses that I hadn't taken because I was in a different major. So I had to take two semesters of organic chemistry in the summer. I took Organic Chemistry One the first semester of the summer and then Organic Chemistry Two,

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and that was really pretty stressful, because you had to do the lab and the course, and it's really packed in the summertime. I had to really buckle down to get that done and you don't get any chance to do anything else but study all summer.

[00:25:34]

T. A. Rosolowski, PhD

[00:25:35]

Now did you find the lab work piece grunt work or did you kind of enjoy the mixing the reagents and figuring it out?

[00:25:42]

Raymond DuBois, MD, PhD

[00:25:41]

I enjoyed it. Believe it or not the professor, Professor Moore, was not all that engaged on a day to day basis. He gave me the paper and said read it, and then come back and draw out the protocol for the purification, and so we went over that and got that all down. It took me a couple of tries before I could get it to work, just because I had never worked in the lab before and I didn't know how to properly utilize all the equipment, but the postdocs and students helped out and we were able to do these large preps. Then once we did it, it made enough of it so that all the people in the lab could use it for their experiments. Even I got to do a few experiments with it, so that was really exciting. Now, you can just buy it from a company but back then you had to make it from scratch.

[00:26:38]

T. A. Rosolowski, PhD

[00:26:38]

Do you think there's a difference in education now that—I mean what's the difference in the experience of learning?

[00:26:44]

Raymond DuBois, MD, PhD

[00:26:44]

Well, I mean it is different. I have had several graduate students in my lab and they don't understand at all, how things have evolved. Now there's a kit where you can do every little assay or procedure. All the ingredients come, you just mix it together and then put it in the spectrometer and get the result. Back then you really had to pull all that stuff together on your own and it really did make me appreciate how precious this was and we didn't want to waste it. Also, you're a lot more concerned about making sure you do everything just right because if you don't get it to work, you don't have—it's very costly to redo all these experiments. So it's a different time now. I mean even what we—I don't know if you know about science, but restriction enzymes are something we use to cut DNA, and we had to purify those too and now

you can just buy them from New England Biolabs. They'll come overnight express and you know, just throw it in the tube.

[00:27:44]

T. A. Rosolowski, PhD

[00:27:44]

I think it gives you a different—you know if part of the aim is to have a kind of global map, if you will, of all of the processes involved in something, you know having made reagents, understanding how your equipment works, that all is part of it and it seems to be to me, to add ingredients into the whole creative process of discovery. Because you never know when some detail is going to be useful to you in trying to figure out how to tweak an experiment or see something from a slightly different perspective.

[00:28:18]

Raymond DuBois, MD, PhD

[00:28:19]

No, I think it does give you a different approach and certainly a different appreciation for collecting this data in a way that it's reliable and analyze it properly, and all this other stuff, whereas now with the kit, well if it doesn't work we'll just do it over again and see what the results are.

[00:28:37]

T. A. Rosolowski, PhD

[00:28:38]

See what the results are, yeah. Well tell me about the next step. So you go into the honors program and things are going great.

[00:28:44]

Raymond DuBois, MD, PhD

[00:28:44]

Yeah, so that went well. The faculty in the Biochemistry Department there were very supportive and there was a group of them that counseled students. These people came from Cornell and Stanford and all over, so they had been to all the top institutions. I had presented my research to some of the faculty there, and they critiqued it and everything. So it came time for the next step and I decided I wanted to get a PhD in biochemistry, to keep going, and so that was another point where decisions had to be made. I was kind of interested in thinking about going to Stanford actually, because some of the papers I had read were from an investigator there, and the feedback I got, I was surprised actually. They were concerned that coming from such a small community and being in sort of a rural community or rural College Station community, that I wasn't ready to go to someplace like that. They thought it might be too much of a stress. I didn't understand exactly, all the feedback I was getting, but they said maybe you should stay in the state of Texas,

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closer to home, and do a PhD at one of the University of Texas schools, instead of going to California or something like that.

[00:30:14]

T. A. Rosolowski, PhD

[00:30:15]

What do you think of that advice now as you look back?

[00:30:16]

Raymond DuBois, MD, PhD

[00:30:17]

I think I could have done it, but I really didn't want to try something that they thought was impossible. I came from a very conservative rural culture and I guess they thought I just might not be able to adapt.

[00:30:32]

T. A. Rosolowski, PhD

[00:30:32]

Going to San Francisco.

[00:30:35]

Raymond DuBois, MD, PhD

[00:30:35]

And Palo Alto or something. So I didn't even apply.

[00:30:38]

T. A. Rosolowski, PhD

[00:30:38]

Oh my gosh, yeah.

[00:30:40]

Raymond DuBois, MD, PhD

[00:30:40]

I applied to one program, it was the University of Texas, Southwestern Medical Center, and they had a really good Biochemistry Department there, and one of the faculty had taken the time to collect all the publications from all the faculty in the department, and so we went through all those and she said there's several possibilities here. They were publishing in the top journals and so --the chairman of the department came from the University of Pennsylvania, and she thought it would be a really great education. And that solved the problem of trying to adjust to a different culture in that point in time. So they accepted me into the program and I moved to

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Dallas.

[00:31:25]

T. A. Rosolowski, PhD

[00:31:26]

Now at that point, what were you envisioning in terms of your future?

[00:31:31]

Raymond DuBois, MD, PhD

[00:31:32]

Well I thought research was going to be a big part of it and clearly focused more on basic science, because that's what I had been exposed to. Again, I found the faculty at UT Southwestern were very welcoming. Dr. Estabrook was the chair of the department and he was one of the top scientists in the country. He had discovered these cytochrome p450 enzymes and he was in the National Academy of Science. He was a very, very strong personality and had a very prescriptive way of sort of instructing people on what the best thing to do was. He was very generous though. He would send me—once I got engaged in graduate research and I joined the lab of someone else, Mike Waterman, who was working on hemoglobin at the time, but we got interested in working on a project looking at the induction of the cytochrome p450 enzymes in the liver, and it ended up being a collaboration between Dr. Estabrook's group and Dr. Waterman's group ultimately. Dr. Estabrook, as the chair, would send me to Sweden and all these other places, to present the data from our work, and that really opened up a lot of avenues that I had never been exposed to.

[00:33:07]

T. A. Rosolowski, PhD

[00:33:07]

Now that sounds like he was really taking a special interest in you.

[00:33:10]

Raymond DuBois, MD, PhD

[00:33:10]

I think he supported other students too, but since I was in his field and doing stuff that he was real excited about, I think he wanted to support it.

[00:33:20]

T. A. Rosolowski, PhD

[00:33:20]

So what were you doing that he was finding so exciting and that obviously you were too.

[00:33:24]

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Raymond DuBois, MD, PhD

[00:33:25]

One of the things that happens is, when you expose animals or people to different --they call them xenobiotics, but they're drugs, different compounds like phenobarbital or other things. The level of the cytochrome p450 goes up in the liver and nobody had really understood at that time, how that was regulated. So what I did that really got him excited was I isolated the messenger RNA from livers and I showed that it was an induction of this messenger RNA, and the transcription of the cytochrome p450 gene. So he thought that was a significant advance and wanted to make sure we had all the things, reagents and everything we needed to make all the experiments work.

[00:34:13]

T. A. Rosolowski, PhD

[00:34:13]

Now why was that observation significant at that time?

[00:34:17]

Raymond DuBois, MD, PhD

[00:34:17]

They had known that if you give a certain drug that's metabolized by the pathway it would go up, but they didn't know if it was just some signaling mechanism or the actual—there was an actual increase in the quantity of the enzyme. So that was something that—and I don't think it was that sort of out of the world observation. I think others at the same time were looking at this and similar labs were finding that that was the case.

[00:34:49]

T. A. Rosolowski, PhD

[00:34:50]

But this is a whole new arena, I mean this field was emerging at the time.

[00:34:52]

Raymond DuBois, MD, PhD

[00:34:52]

Right, right.

[00:34:53]

T. A. Rosolowski, PhD

[00:34:53]

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I mean that's why I'm asking these questions, and sort of how are you putting the micro visions together.

[00:34:58]

Raymond DuBois, MD, PhD

[00:34:58]

It was just fortuitous but my graduate advisor had just done a sabbatical in—it was either Cambridge or Oxford, I can't remember. He had learned how to isolate this messenger RNA, which people hadn't been able to do previously, and so using the techniques that he had learned, we were able to isolate it and then transcribe it and show that there's more of it in the liver cell after the exposure to the drug than before.

[00:35:31]

T. A. Rosolowski, PhD

[00:35:32]

And your advisor's name was?

[00:35:33]

Raymond DuBois, MD, PhD

[00:35:33]

Waterman.

[00:35:33]

T. A. Rosolowski, PhD

[00:35:34]

Oh, okay, Mike Waterman.

[00:35:34]

Raymond DuBois, MD, PhD

[00:35:35]

Michael Waterman. He had trained in Portland, so I was getting exposed to people that come from all over the country, and when I went to these meetings people were very excited about hearing the results.

[00:35:47]

T. A. Rosolowski, PhD

[00:35:48]

Wow.

[00:35:48]

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Raymond DuBois, MD, PhD

[00:35:48]

So you know that was tremendous feedback.

[00:35:51]

T. A. Rosolowski, PhD

[00:35:51]

Well yeah, real confidence boosting.

[00:35:53]

Raymond DuBois, MD, PhD

[00:35:53]

No, it was great. So I did my dissertation on that topic and a whole bunch of other experiments, and found that one of the cytochrome p450s was processed by a proteolytic cleavage to a smaller form and everybody seemed excited about that and we had several publications that got a lot of attention.

[00:36:16]

T. A. Rosolowski, PhD

[00:36:18]

So that was pretty early, I mean that's so early in your career, it's amazing.

[00:36:21]

Raymond DuBois, MD, PhD

[00:36:20]

Yeah, it was like my first series of experiments, that we did that. During this time, you also do rotations in other labs, and so I rotated in a lab that was in the Green Center for Reproductive Sciences, and mostly the people up there were in OB/GYN, and they were studying the mechanism for parturition, for how the embryo and fetus, what the stimulus is for the birth process. So that was a whole different set of questions and approaches and during that time. I was participating in the clinical conferences that were held up there and I got really interested in clinical medicine and could see that some of the basic sciences, if done properly, could apply to these real clinical problems.

Chapter 03

Medical School with a View of How the Basic Sciences Might Address Clinical Problems

A: Professional Path;

Codes

A: The Researcher;

A: Overview;

A: Definitions, Explanations, Translations;

C: Discovery and Success;

A: Personal Background;

A: Character, Values, Beliefs, Talents;

A: Influences from People and Life Experiences;

A: Professional Path; C: Evolution of Career;

A: Inspirations to Practice Science/Medicine;

D: On Research and Researchers;

D: Understanding Cancer, the History of Science, Cancer Research;

D: The History of Health Care, Patient Care;

C: Professional Practice; C: The Professional at Work;

C: Collaborations;

Raymond DuBois, MD, PhD

[00:36:20]+

So kind of during my third year in graduate school, I decided I probably needed to go to med school, and I can tell you, the people in the Biochemistry Department weren't very happy about that.

[00:37:24]

T. A. Rosolowski, PhD

[00:37:24]

Why?

[00:37:24]

Raymond DuBois, MD, PhD

[00:37:25]

Because they, they thought it would be selling out one career to take on another.

[00:37:30]

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T. A. Rosolowski, PhD

[00:37:30]

Right.

[00:37:30]

Raymond DuBois, MD, PhD

[00:37:31]

They didn't really see it as a merging of the two areas at the time.

[00:37:36]

T. A. Rosolowski, PhD

[00:37:37]

So this would have been '81 or in '80.

[00:37:41]

Raymond DuBois, MD, PhD

[00:37:41]

Well, '79, '80, during that time.

[00:37:43]

T. A. Rosolowski, PhD

[00:37:43]

In '79, '80, you're thinking about this, yeah.

[00:37:44]

Raymond DuBois, MD, PhD

[00:37:45]

Right.

[00:37:45]

T. A. Rosolowski, PhD

[00:37:45]

And this, I mean no one had even articulated the word translational science.

[00:37:49]

Raymond DuBois, MD, PhD

[00:37:50]

No, no, no. They didn't really see them connected. Either you did clinical research or you did basic research.

[00:37:55]

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T. A. Rosolowski, PhD

[00:37:54]

Right. I remember John Mendelsohn [oral history interview] telling me, in his interview, that he was keeping a diary when he was in his undergrad, and he actually had done a year abroad I think, and was writing in his diary about this possibility of taking basic science observations and applying them in clinical settings and it's like yeah. I mean people were—it was sort of in the ether but it hadn't become a thing yet that was named.

[00:38:22]

Raymond DuBois, MD, PhD

[00:38:21]

Yeah, right. And they really didn't have a lot of organized MD/PhD programs, so you sort of had to find your own way.

[00:38:31]

T. A. Rosolowski, PhD

[00:38:32]

But fortunately, you didn't take the advice, you stuck to your guns. [laughter]

[00:38:37]

Raymond DuBois, MD, PhD

[00:38:36]

Yeah. No, they were very negative and at the time, they had a rule in place at UT Southwestern, that they wouldn't take anybody from the Graduate School as an applicant for medical school.

[00:38:50]

T. A. Rosolowski, PhD

[00:38:50]

Really?

[00:38:50]

Raymond DuBois, MD, PhD

[00:38:51]

Yeah, they wouldn't. I wasn't allowed to apply to that medical school, so I applied to all the whole UT System schools, other than UT Southwestern.

[00:39:00]

T. A. Rosolowski, PhD

[00:39:01]

Now did you have an idea what that next step might look like, applying basic science in clinical

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settings?

[00:39:08]

Raymond DuBois, MD, PhD

[00:39:08]

Yeah. I think because I had done so much work on drug metabolism, steroid metabolism and things that happen in the liver. I really did think about gastroenterology ultimately as an area of interest, so very early on, I formulated the idea to go into gastroenterology, because of the experience in cytochrome p450 field. Luckily, life is crazy, how certain things happen, but one of the faculty at UT Southwestern, Dr. Ray Burke, B-u-r-k-e, he was a hepatologist there and I had done a rotation in his lab before I joined the Waterman lab. Unbeknownst to me, and I didn't even know it, but at some point he transferred as faculty, to UT Health Science Center in San Antonio. I got accepted to most of the schools that at that time were part of the University of Texas System. I was not eligible for UT Southwestern and I decided to go to San Antonio because it was closer to my home. My mom had a weird illness at that time that eventually she got over, and so I thought it would be better to be closer to home. Dr. Burke had taken on a faculty position down there as well and he became my advisor. And so I started just the regular medical school curriculum, which is pretty set, and then after the first year they allow you to do research, and so I did summer research in his laboratory, which was part of the Gastroenterology Division there.

[00:40:58]

T. A. Rosolowski, PhD

[00:40:58]

So how did you like medical school?

[00:41:00]

Raymond DuBois, MD, PhD

[00:41:00]

Well I didn't like the first two years, I mean it was very rote memorization of just knowledge from metabolic pathways and algorithms, and it wasn't very exciting but it was important to learn all that information. After the first year I thought, well maybe this is not exactly what I should be doing, but I did well and I was able to make good grades and pass all the tests and all that stuff, but I didn't like that. I really enjoyed it after we started the third year and really got involved in clinical rotations, and then it all made a lot more sense and that really made it worth it.

[00:41:42]

T. A. Rosolowski, PhD

[00:41:42]

What was happening with your basic sciences during this time? Do you put it on hold when you

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were doing your med school program?

[00:41:51]

Raymond DuBois, MD, PhD

[00:41:52]

That's why having Dr. Burke there was so important, because essentially, I could work in his lab during the summer and do research projects, and he worked in a whole different area. He worked on what we call selenoproteins. Selenium is an element that is part of some of the proteins that are important to protect against oxidative damage in cells. Glutathione is an enzyme, or a protein that has selenium, and then he discovered a new selenoprotein, called Selenoprotein P, and so I was working on trying to characterize that, and that becomes very important later in the story.

[00:42:34]

T. A. Rosolowski, PhD

[00:42:34]

Selenoprotein P, all right, I've got that down. I'm excited. I want to hear about selenoprotein P.

[00:42:42]

Raymond DuBois, MD, PhD

[00:42:43]

During my third year, after I finished the clinical rotations, we could do externships or rotations away, and there was a woman at the NIH, that worked in the intramural program in Building 3, her name is Thressa Stadtman, S-t-a-d-t-m-a-n.

[00:43:04]

T. A. Rosolowski, PhD

[00:43:05]

I'm sorry, I glitched that.

[00:43:06]

Raymond DuBois, MD, PhD

[00:43:06]

Stadtman. It's D-T, or I can send it.

[00:43:16]

T. A. Rosolowski, PhD

[00:43:16]

I'll make the list so we can correct it.

[00:43:18]

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Raymond DuBois, MD, PhD

[00:43:18]

She turned out to be a very amazing scientist. She had discovered selenoproteins in bacteria and how they control growth and all kinds of things in bacteria, and she was a major player in the field. We were having trouble purifying this protein, and so the idea was for me to go to that lab and try to use some of the techniques she had used on the bacterial proteins that she purified.

This was probably in '84, '83, '84.

[00:43:52]

T. A. Rosolowski, PhD

[00:43:52]

Oh, okay. Where was she?

[00:43:53]

Raymond DuBois, MD, PhD

[00:43:54]

She's at the NIH in Bethesda.

[00:43:55]

T. A. Rosolowski, PhD

[00:43:56]

Oh, okay at NIH. I missed that on your CV.

[00:43:59]

Raymond DuBois, MD, PhD

[00:44:00]

I don't know if I had that on there or not, but that was an important time, because I worked with a postdoc and we worked day and night, with different approaches, to try to purify it, and he was using much more modern techniques than we were using in Texas.

[00:44:16]

T. A. Rosolowski, PhD

[00:44:16]

Now you say day and night. What do you mean by that?

[00:44:19]

Raymond DuBois, MD, PhD

[00:44:20]

I mean I literally would come in at seven or eight in the morning, and we would stay there until ten o'clock at night, and sometimes we would stay there all right, if he had a purification run that

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we were doing.

[00:44:30]

T. A. Rosolowski, PhD

[00:44:30]

Right.

[00:44:31]

Raymond DuBois, MD, PhD

[00:44:31]

Luckily at that time in Bethesda, there was no security at the institute, so I stayed in a house that rented a room in a house close by, and I could just ride the bicycle in and out, and so it was really access.

[00:44:45]

T. A. Rosolowski, PhD

[00:44:45]

I ask because lab work like that really is a labor of love, you just have to put in the physical time, you know you really do. Yeah.

[00:44:51]

Raymond DuBois, MD, PhD

[00:44:50]

Right, right, I really got into it.

[00:44:54]

T. A. Rosolowski, PhD

[00:44:55]

What was the postdoc's name, do you remember?

[00:44:57]

Raymond DuBois, MD, PhD

[00:44:57]

Mark Sliwkowski.

[00:44:58]

T. A. Rosolowski, PhD

[00:44:58]

Mark Sliwkowski?

[01:00:00]

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Raymond DuBois, MD, PhD

[00:45:00]

Sliwkowski. It's a Polish name. S-l-i-w-k-o-w-s-k-i. He now is—he was a major scientist at Genentech and he discovered the Her2 treatment for breast cancer. We've been friends ever since this time.

[00:45:20]

T. A. Rosolowski, PhD

[00:45:19]

That's so cool.

[00:45:20]

Raymond DuBois, MD, PhD

[00:45:21]

You meet some interesting people.

[00:45:23]

T. A. Rosolowski, PhD

[00:45:23]

And it gets to be a small world at that. Well that's very cool, so that's interesting.

[00:45:27]

Raymond DuBois, MD, PhD

[00:45:26]

We were able to make an advance. We didn't purify it to total purity, but we were able to add some steps that made a difference, and so I wrote everything down, documented everything, brought it back to the lab, and then they continued to work on this after I went on to my next thing. So after medical school, you match into a residency for clinical training, and Dr. Burke was my advisor. We had two or three long talks about this and one idea was just to try to stay in Texas and continue some of this research. He actually said you know—and this was the first time somebody supported the idea—“You should go out to another place and experience another culture and really see what the world is all about.”

[00:46:16]

T. A. Rosolowski, PhD

[00:46:17]

Well see, you didn't crash and burn at the NIH, right?

[00:46:20]

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Raymond DuBois, MD, PhD

[00:46:20]

Yeah, three months, it was okay. So I applied to a lot of different programs. I applied to Duke and Johns Hopkins and Yale and other places, and went out for those interviews, and I really hit it off really well with the chair of the Department of Medicine at Johns Hopkins. His name was Victor McKusick and he's the father of the gene, basically. He's described a bunch of inherited diseases and a very eclectic person. I mean he's really a very strange man, but very learned, and for some reason we hit it off, mainly because he found out that I went to college on the Houston Livestock Show and Rodeo Scholarship. He was real excited about that, because he had never heard of anybody on one of those scholarships going to Hopkins before, so that was a very big plus for him. Some people would see it as a hillbilly country hick or something, but he didn't see it that way.

[00:47:25]

T. A. Rosolowski, PhD

[00:47:26]

How did he see it?

[00:47:27]

Raymond DuBois, MD, PhD

[00:47:27]

He said that you know, it gives you a different perspective on things, and he wanted people that come from all different parts of the spectrum. I matched at Hopkins, and so I went to Baltimore and did my internship and residency. And then the other—it was really fortuitous, but this work with Dr. Stadtman really helped me, because I wanted to do a postdoc after my clinical training, with Dan Nathans, who had won the Nobel Prize for discovering restriction enzymes. A lot of people applied to his lab and it was very competitive. In fact, one of my friends applied and he didn't get accepted for a position, and I applied and he wanted to know who my people were that would recommend me, and so I put Thressa's name on there and it turns out he was a friend of hers, because he had worked at the NIH previously. She gave me a really good recommendation, so I was able to get into his lab and that was a great training experience.

[00:48:30]

T. A. Rosolowski, PhD

[00:48:30]

So what did you get from that experience?

[00:48:33]

Raymond DuBois, MD, PhD

[00:48:33]

Well, you know, people who have Nobel Prizes get treated differently, they look at research

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differently, and no small project was going to cut it in his lab. He really wanted to move the needle and do things that were really going to make a difference. So, one of the big projects that a bunch of us undertook in the lab was to clone all of the genes that are affected when you stimulate a cell to grow, and it turns out to be a lot of genes, I mean there were over 300 genes. His lab had developed a new technique where we could isolate those genes, that others couldn't yet do.

[00:49:14]

T. A. Rosolowski, PhD

[00:49:14]

That sounds like an amazing goal.

[00:49:16]

Raymond DuBois, MD, PhD

[00:49:16]

Yeah. No, I mean he really had high hopes for everything and I had never been exposed to anybody who was like wanting to hit a homerun every day, but it was a great experience. I worked on one of the genes, it was called Nup475, and it was the 475th clone, and Nup because it was a nuclear protein. So I cloned it, I purified it, I studied what its properties worked and looked at the sequence carefully, and it turns out it was an RNA binding protein. At the time, we thought it was a DNA binding protein, so we were a little bit off there. We published that work on it and then eventually, an investigator at Duke had followed up on it after I had left the lab and showed that it played a very important role in lupus and the pathophysiology for lupus in women. So that, I wasn't able to make that discovery, but at least being involved in something that turned out to have a clinically relevant effect.

[00:50:30]

T. A. Rosolowski, PhD

[00:50:30]

All these tiny building blocks being established, piece by piece, and then finally something comes of them. Yeah.

[00:50:37]

Raymond DuBois, MD, PhD

[00:50:38]

Right.

[00:50:38]

T. A. Rosolowski, PhD

[00:50:39]

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How exciting.

[00:50:40]

Raymond DuBois, MD, PhD

[00:50:40]

Obviously, that was a great experience and there were lots of really top scientists working in his lab, at all different levels.

[00:50:46]

T. A. Rosolowski, PhD

[00:50:47]

Now how were you being trained to think about research questions and research design, I mean all that kind of thing.

[00:50:54]

Raymond DuBois, MD, PhD

[00:50:54]

Well, it was very rigorous there. Dr. Nathans met with everybody once a week for several hours. At those meetings, we had to present our experimental design, our data, and he rigorously went over it. When I did some amino staining for this protein and showed that it was in the nucleus, he actually wanted to see what I was observing in the microscope, so he would—he said, “Come get me when you get the stain, I want to see what it looks like.” So I brought him down and he got to see what the stain looked like under the microscope. Usually we take pictures of it and show it at the lab meeting, but he was very engaged, very rigorous and with high standards, and so we had to do everything multiple times to prove that it was the right observation. When I wrote the paper with him, it was a rigorous process that we went through at least thirty different drafts on it. It was a good example, a good mentor, and I think that it was just a wonderful experience. And then following that, so I had finished the postdoc with him, and then he gave me a position as a research associate in the Howard Hughes Institute that was there, and so that was also good, to have that on your CV.

[00:52:17]

Chapter 04

Research and Administration at Vanderbilt University

A: Professional Path;

Codes

A: The Researcher;

C: Discovery and Success;

A: Overview;

A: Definitions, Explanations, Translations;

C: Leadership; D: On Leadership;

C: Professional Practice; C: The Professional at Work;

A: Professional Path; C: Evolution of Career;

D: Understanding Cancer, the History of Science, Cancer Research;

D: The History of Health Care, Patient Care;

Raymond DuBois, MD, PhD

[00:52:17]

Then, when I finished my clinical training, it was time to get a faculty position, they did offer me a position to stay on at Hopkins, so I thought that was a good sign, but I applied to Duke, Vanderbilt, and Iowa. I had an acquaintance in Iowa who said I should apply there. I got offered positions at all those places, and then it turns out that my mentor in San Antonio had since taken the job as Chief of Gastroenterology at Vanderbilt, so I felt secure there. He provided a great environment, and so I took the job at Vanderbilt and I stayed there, on faculty, for sixteen years, so that was long term.

[00:53:04]

T. A. Rosolowski, PhD

[00:53:04]

And that's where you started getting into more—

[00:53:08]

Raymond DuBois, MD, PhD

[00:53:08]

Cancer.

[00:53:08]

T. A. Rosolowski, PhD

[00:53:09]

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Cancer, and also the administrative side as well.

[00:53:11]

Raymond DuBois, MD, PhD

[00:53:11]

Yes, yes.

[00:53:12]

T. A. Rosolowski, PhD

[00:53:13]

So tell me about that story, you know how you started, I don't know bifurcating basically, from the academic and research side, into these other areas, and cancer obviously.

[00:53:27]

Raymond DuBois, MD, PhD

[00:53:27]

Initially, the goal was to develop a funded laboratory, and Dr. Nathans was very generous. I brought a lot of reagents and other things with me from Baltimore. In fact, we had to rent a U-Haul trailer and put everything in dry ice, and we hauled it from Baltimore to Nashville, and we did it in one thing because we didn't want anything to melt. We were very fastidious about that. I set up my lab there, started hiring lab personnel, and one of the things, the offshoot from the cloning project at Hopkins, was that I was able to obtain a cell line from rat intestinal epithelium, RIE cells. In those cells, if you treat those cells with epidermal growth factor or other types of epidermal growth factor and ligands, it induced a gene to a very high level. We observed this several times and I cloned out and sequenced the gene and it turned out to be the Cyclooxygenase-2 gene, and so we discovered that and started doing a lot of work on that, and I really was able to get a lot of research funding to support those studies eventually, from the NIH.

[00:54:51]

T. A. Rosolowski, PhD

[00:54:51]

Because that was really the big groundbreaker for you.

[00:54:56]

Raymond DuBois, MD, PhD

[00:54:56]

For me, yeah.

[00:54:57]

T. A. Rosolowski, PhD

[00:54:57]

Absolutely. Do you want to tell that story?

[00:55:00]

Raymond DuBois, MD, PhD

[00:55:00]

Yeah. It was me and a lab tech and like one other person working there, and one of my colleagues from Hopkins came down for just a few days, to help us get those cloning experiments started, because he was the one that had the best expertise. And so we saw it. We didn't understand why it was induced to such a great extent and we didn't ever expect that particular gene to be expressed in epithelial cells, so there was a lot of questions about what was going on. But it all came together at that point in time, because there were—I guess this was started in the late '80s, early '90s—a lot of publications showing that people who take aspirin or other drugs that inhibit this enzyme have a decreased risk of cancer, and so just by reading the literature, I could tell that was going on. And then the other studies were initiated to try to prove that this thing was induced by growth factors and other oncogenes in these cells, and that maybe it was playing a role in driving the progression of cancer. So that was the hypothesis and we set up several animal models and we tested it by using drugs to inhibit it, or overexpressing the enzyme using expression vectors, or knocking it out in animals, to see what would happen when the gene was missing, and through a whole series of experiments, we were able to show that it did play a role in cancer progression, and by treating with these inhibitors, it did inhibit that progression. So that set up the whole sort of mechanism for what was going on with these anti-inflammatory agents in cancer, and that was a very exciting time. We published two cell papers on that and got a lot of international attention, and I was invited like everywhere at once, to give a talk and explain what was going on. It was overwhelming in a way because even in Dr. Nathans' lab, this nuclear protein 475, nobody seemed to be interested in that. It was just a gene that was induced in those cells and we didn't know what role it was playing, but after getting involved in this work at Vanderbilt, everything progressed pretty rapidly. A lot of students joined my lab, I had postdocs from all over, and we really were on a roll there, trying to understand what that gene was doing and how useful it might be in the cancer progression process.

[00:57:50]

T. A. Rosolowski, PhD

[00:57:51]

Now, you started at Vanderbilt in '91.

[00:57:54]

Raymond DuBois, MD, PhD

[00:57:54]

Ninety-one.

[00:57:54]

T. A. Rosolowski, PhD

[00:57:55]

Ninety one. What was the span of doing these initial studies.

[00:58:04]

Raymond DuBois, MD, PhD

[00:58:05]

It all sort of got going quickly, within three years. I mean it took a year to get the lab up and running, it took another six to eight months to recruit more people in, but I think we published the cloning in '93.

[00:58:20]

T. A. Rosolowski, PhD

[00:58:21]

Wow.

[00:58:21]

Raymond DuBois, MD, PhD

[00:58:21]

Everything started rolling after that. At one point, I had a team of about twenty-five people in the lab, and I felt that was too many. I just couldn't keep up with what all of them were doing, and some of them were really wasting time, because I didn't have enough time to be involved, and I was getting invited to talk all over the world and do a lot of traveling. At first that's enticing, but then you realize, you know it really keeps you away from your family and from work, so you've got to balance that with the other jobs that need to be done.

[00:59:00]

T. A. Rosolowski, PhD

[00:59:01]

Now, what was happening at this time? Were you focusing pretty much on the laboratory, basic sciences piece of this?

[00:59:10]

Raymond DuBois, MD, PhD

[00:59:10]

Yeah, yeah.

[00:59:11]

T. A. Rosolowski, PhD

[00:59:11]

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But you were—probably part of your mind is oh yeah, that clinical piece.

[00:59:15]

Raymond DuBois, MD, PhD

[00:59:15]

Yeah. So what was happening was that Dr. Burke needed somebody to be a research director for the Division of Gastroenterology. He was a clinical hepatologist, the division was very clinically oriented. There were a few people, other than myself, that were working on laboratory science, but he had never really had anybody in charge of that, so he asked me to take on the role as director. So we created a curriculum for our fellows, about different things they needed to learn about, basic and translational science. Actually, I got involved in teaching medical students on GI physiology. I don't know how that happened. I guess they just needed somebody to do it.

[01:00:04]

T. A. Rosolowski, PhD

[01:00:04]

And this was February, 1998 to 2004, you were director of—

[01:00:09]

Raymond DuBois, MD, PhD

[01:00:10]

Research.

[01:00:11]

T. A. Rosolowski, PhD

[01:00:11]

Yeah, Director of Research, Gastroenterology, Hepatology and Nutrition.

[01:00:14]

Raymond DuBois, MD, PhD

[01:00:13]

Oh good, it's on there, good.

[01:00:16]

T. A. Rosolowski, PhD

[01:00:16]

I tried to do my homework.

[01:00:17]

Raymond DuBois, MD, PhD

[01:00:17]

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So that happened after that burst of science.

[01:00:19]

T. A. Rosolowski, PhD

[01:00:20]

Right.

[01:00:20]

Raymond DuBois, MD, PhD

[01:00:20]

And then I got promoted pretty quickly for Vanderbilt, because usually, it takes a bit longer for faculty to do it. So within three years, they promoted me to associate professor and then another three years to full professor.

[01:00:36]

T. A. Rosolowski, PhD

[01:00:35]

To full, yeah.

[01:00:36]

Raymond DuBois, MD, PhD

[01:00:37]

So that was pretty amazing. At the time, I just thought it was normal, but I think it doesn't usually happen that way. And then Dr. Burke had decided he wanted to retire from being the director of the division. He had started that job long before I got there, and so they asked me to do that job eventually and I can't remember exactly when that happened, the late '90s probably.

[01:01:01]

T. A. Rosolowski, PhD

[01:01:02]

Okay, so let's see, I'm trying to see.

[01:01:04]

Raymond DuBois, MD, PhD

[01:01:04]

Some time in the 2000s.

[01:01:07]

T. A. Rosolowski, PhD

[01:01:08]

So this is interesting, the roles I have. February, 1998, I have you as Director of

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Gastroenterology, Hepatology and Nutrition. Now was that when you took over from Dr. Burke?

[01:01:19]

Raymond DuBois, MD, PhD

[01:01:19]

Burke, yeah.

[01:01:20]

T. A. Rosolowski, PhD

[01:01:20]

Okay, but before then, you were promoted to Director of Research.

[01:01:23]

Raymond DuBois, MD, PhD

[01:01:21]

I was Director of Research.

[01:01:23]

T. A. Rosolowski, PhD

[01:01:23]

And what was that date about do you think?

[01:01:25]

Raymond DuBois, MD, PhD

[01:01:26]

It was probably '93, '94.

[01:01:28]

T. A. Rosolowski, PhD

[01:01:29]

Oh, okay, '93, '94.

[01:01:31]

Raymond DuBois, MD, PhD

[01:01:31]

I don't even know if I put it on there.

[01:01:33]

T. A. Rosolowski, PhD

[01:01:33]

Yeah, I don't think I saw that. So—
[01:01:38]

Raymond DuBois, MD, PhD

[01:01:39]

So then I got more involved in administration and it was a fairly small division. We had about twenty-five faculty and my role in that situation, I hired a person to be—I had the research part covered, and then I hired a person to be vice director for clinical affairs, and they helped run the clinic and the outpatient center, and all the stuff that dealt with clinical issues, and then I hired a person to be the fellowship director, because we trained a lot of GI fellows.

[01:02:15]

T. A. Rosolowski, PhD

[01:02:15]

So how was your perspective on institutions changing with all of this?

[01:02:20]

Raymond DuBois, MD, PhD

[01:02:20]

Well, I definitely got a different view of things, because I had only been in my lab, doing my own research, and then now, I went to meetings with all the other division directors for the Department of Medicine. I had to do the budget and personnel things. You know, I think the hardest thing is to do conflict resolution and deal with all the things that some of the angry faculty have to be counseled on. That was definitely a completely different aspect that I was never really trained for. They did offer sort of an executive MBA program through the Vanderbilt School of Business, and basically you go nights and weekends for a period of time, and I went through that because I really needed to learn more about budgeting and other things, to run a financially viable division.

[01:03:18]

T. A. Rosolowski, PhD

[01:03:19]

Did you like it?

[01:03:19]

Raymond DuBois, MD, PhD

[01:03:20]

I liked it. I met different people and interfaced with other administration, people from the administration at Vanderbilt, and our division did really well. Luckily, in gastroenterology, you have a lot of fee for service type procedures, and so we were making a healthy margin and had enough money to hire new people and expand the research program, expand the clinical

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program. It's really like running a small business, because you have all the nursing personnel over in the hospital and clinic, you have all the research staff that work with the faculty. I generally get along well with everybody, so that I think they enjoyed working there.

[01:04:10]

T. A. Rosolowski, PhD

[01:04:11]

I'm just observing, I mean there are a number of people who get promoted into administrative positions and they realize, no thank you, I'm backing away. But obviously that wasn't your response.

[01:04:21]

Raymond DuBois, MD, PhD

[01:04:22]

No, I enjoyed it.

[01:04:23]

T. A. Rosolowski, PhD

[01:04:23]

What did you get out of it?

[01:04:24]

Raymond DuBois, MD, PhD

[01:04:25]

Well, the most important thing, I think the biggest reward for that is to see individuals who come up the ladder, young faculty or even fellows, that also accomplish all these things and then they become successful, and you sort of can really multiply your impact through all these other people. Luckily, we chose really good people to be fellows, and one of our fellows eventually became the director when I went on to do other things, Rick Peek, and so seeing him excel and go through the whole process and now he's been extremely successful. He's working on how helicobacter pylori causes stomach cancer and has identified all these genes made by the bacterium that stimulate cancer formation in the stomach. I knew him when he was just an early fellow and could barely even do anything clinically, so that really was very rewarding and still is rewarding, to see that happen. And then I had several MD PhD students in my lab that have since become extremely successful, and just seeing those younger trainees go through the process and giving them the mentoring they need to make successful careers, to me is very rewarding. Everybody tends to focus on their own thing and they really want to see success for themselves over and over again. I really enjoyed the aspect of seeing others succeed and trying to promote their careers, and I think that's why I eventually got involved in several other administrative roles at a variety of institutions.

[01:06:08]

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Chapter 05

Thoughts on Healthcare, Academic Medical Centers and the Medical University of South Carolina

A: Overview;

Codes

A: Overview;

C: Leadership; D: On Leadership;

C: Professional Practice; C: The Professional at Work;

C: Mentoring; D: On Mentoring;

D: On Research and Researchers;

D: Understanding Cancer, the History of Science, Cancer Research;

D: The History of Health Care, Patient Care;

D: On the Nature of Institutions;

D: Business of Research;

D: Fiscal Realities in Healthcare;

D: The Healthcare Industry;

T. A. Rosolowski, PhD

[01:06:10]

I'm interested too, you had kind of had that little throwaway, that you were involved in curriculum development, teaching the medical school and all that, and that brings up the whole issue of how do you create a good environment for the physician-scientist, which was this new creature that was coming into being. You were one of them.

[01:06:31]

Raymond DuBois, MD, PhD

[01:06:31]

Right, right, I was an experiment, yeah.

[01:06:33]

T. A. Rosolowski, PhD

[01:06:33]

Yeah. I mean it was a really interesting time. What are your thoughts, when you look back, in putting together those curricula, kind of creating those environments that really fostered success for people who wanted to work in this translational space.

[01:06:49]

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Raymond DuBois, MD, PhD

[01:06:50]

Right. Well, when I took on this role to teach the GI Physiology, the class hated that course.

[01:06:57]

T. A. Rosolowski, PhD

[01:06:58]

Oh really?

[01:06:58]

Raymond DuBois, MD, PhD

[01:06:59]

I don't even remember who taught it before I took it over but apparently, it was really and outdated, fairly old view of that whole area, so about that time, a new textbook was written on GI physiology, so I bought it as soon as I could get it. I went through the textbook and then what I tried to do is you know, there are certain basic things you have to teach, like how does the gut—how does motility work and how does swallowing work and how does digestion work, and what's important for nutrition, so there's some basic things that med students need to know. What I tried to do was carve out some interesting vignettes about where science really played an important role and how it really advanced the field. Then during my sort of basic facts that I was presenting, to try to infuse that, to get people excited about discovery and how it changed clinical medicine and things like that.

[01:08:03]

I distinctly remember, you know there's this oral rehydration solution that you have to use in Africa, because they don't have IVs, and when they have cholera, if you don't give this, the people get dehydrated and die, because they just have this unrelenting diarrhea. And so the composition of the oral hydration solution was made so that it would get absorbed maximally by the intestine, because there are certain transporters down there that work under certain conditions and not under others, and so just by pure trial and error, they came up with this solution, and so I use that for an example for the med students. You know what are the components in this solution and why do you think it alleviates the dehydration? And so they were able to learn all these transporter systems in the gut because of the process of trying to rehydrate cholera patients. So I think that really made them a lot more excited about the topic and instead of just talking about the transporter and how great it was and all that stuff. That's an example, I think, of how we can make the material—and they never forget it because they know that people get cholera and they know there's an oral rehydration solution, and the proper amount of electrolytes in there to make those transporters work.

[01:09:24]

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T. A. Rosolowski, PhD

[01:09:25]

Yeah. I mean that's just good teaching, you know just several real world scenarios that kind of bring the theory, like how does it actually work on the ground.

[01:09:34]

Raymond DuBois, MD, PhD

[01:09:34]

Right, right. And then here, we've had some major changes in the curriculum. If you look back in the history of—

[01:09:43]

T. A. Rosolowski, PhD

[01:09:43]

Here meaning here in South Carolina?

[01:09:45]

Raymond DuBois, MD, PhD

[01:09:45]

In USC, yeah. So in medical schools, the curricula was set around 1910 with the Flexner Report, and Abraham Flexner reviewed all the medical schools and said it had to be a certain way, where you taught embryology, anatomy, biochemistry and physiology, all of those courses were taught individually and by different groups, and then somehow the student was supposed to magically synthesize it all when they got more towards the clinical area, and make it relevant. So before I came even, they integrated the curriculum here, so they don't have those separate entities. They're infused within the curriculum so that whenever a disease process impacts a sort of biochemical or anatomical, that automatically comes into the equation. After I got here, we changed the curriculum and we made what we call a flexible curriculum. The flexible curriculum is that they go through this integrated year one, and then year two, they have some choices that they can take different tracks. There's a sort of public health track, there's a medical research track, there's more of a family healthcare track, there's a humanities track, and so we've really—you know it's not easy to have all these offerings, because it was much more easy when you just had everything siloed in these individual blocks, but so far the students like it. It gives them a lot more opportunities than they had before, and then we've been able to create a curriculum where they can actually finish their MD in three years, be completely done, and then start their residency in that fourth year. We've had one student who has now gone through the whole thing and he went into orthopedics and he's doing really well. You have to be very selective about which students can advance on that track, because it's accelerated and not everybody is equipped to do that in such a short time.

[01:11:50]

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T. A. Rosolowski, PhD

[01:11:52]

Are you finding—well, this is a medical school scenario here at MUSC. Are you finding that there are individuals who want to go through to a PhD program, meaning they're exposed to some of this basic sciences. Is that, that's opening their minds?

[01:12:10]

Raymond DuBois, MD, PhD

[01:12:10]

Yeah, so in addition to the other things, we already offered an MD/PhD program, and we've had a program going for twenty-five years and it's been very successful. So now we're offering MD/MPA, MD Masters of Clinical Science, we have an MD/JD, if somebody wants to get more involved in the legal aspects of it. We've teamed up with Clemson University, which is much like Texas A&M, it's in the upper part of the state of South Carolina. They have strong engineering and physical science, and so we have a three plus four program where the student can do three years at Clemson and then start medical school during their fourth year, and then do the fourth year and Clemson gives them their undergraduate degree after that fourth year, or first year here, and then they get the MD degree if they go through it. Now they could do it in three plus three if they were really accelerated and get all of that done within six years.

[01:13:11]

T. A. Rosolowski, PhD

[01:13:12]

What are some other things going on, kind of in healthcare and in education, that are making these combined degrees such an important option for students and professionals at this point?

[01:13:23]

Raymond DuBois, MD, PhD

[01:13:24]

There's a huge need now, in the way healthcare is evolving, to have physicians who are good at business and administration, and I think it's going to hopefully be a savior for the academic health centers, because we do get so involved in teaching and research, that people aren't generally that well trained in the business principles and finance, and mergers and acquisitions and all that stuff. So offering these combined degrees I think will provide people a lot of other options that people in the past never had, and also provide well trained personnel who can manage these complicated health systems and other things that we're dealing with.

[01:14:15]

T. A. Rosolowski, PhD

[01:14:18]

What's your observation about academic medical centers in general? I mean, they're under siege

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for all kinds of reasons. What are you seeing?

[01:14:26]

Raymond DuBois, MD, PhD

[01:14:27]

It's a general trend across the country. Academic centers aren't as profitable as they have been in the past and I think even MD Anderson went through issues, even while I was there and after I left. I think they had some significant strains, and so that does put a lot of pressure on the physicians and on the system to perform. Part of it is the way we pay for healthcare, there is less ability to collect payment for things that we do. There's a trend towards this new system that rewards value and outcomes and things like that, and I think that is the way to go. The problem is, we just have a schizophrenic political system that is --we're stuck in this fee for service model where the more work you do, the more pay you do. One of the things that really amazed me when I joined MD Anderson was that somebody came up to me one day and said, "Dr. DuBois, do you realize we do 700 CT scans each day." Because we have such a big clinical enterprise. And we've got to read them, and those reports have to be into the medical record by a certain time, and I just hadn't really thought of anything on that scale, but we did get financial rewards for doing those, but somebody did a study and about 30 percent of them really weren't needed to make healthcare decisions. So that's an eye-opening thing. You want to provide good healthcare but you don't want to do unnecessary tests and other things that cost the system or the patient. So there's a fine balance between generating what the best clinical outcome for the patient is, and then generating this revenue by doing lots and lots of procedures and surgeries, endoscopies, and all the things that for some reason the health system rewards at a lot higher rate than just talking to someone about what's going on and trying to help them sort of get through a disease process.

[01:16:35]

T. A. Rosolowski, PhD

[01:16:36]

Well I'm sure we'll come back to some of these issues again. Well, you want to—

[01:16:45]

Raymond DuBois, MD, PhD

[01:16:46]

You want to go on with this story?

[01:16:47]

T. A. Rosolowski, PhD

[01:16:48]

Well, yeah, I'm just—well no it was—yeah.

[01:16:50]



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Chapter 06

An Offer from MD Anderson

A: Joining MD Anderson/Coming to Texas;

Codes

A: Professional Path; C: Evolution of Career;

A: Joining MD Anderson;

A: Personal Background;

A: Obstacles, Challenges;

A: Professional Values, Ethics, Purpose;

A: Critical Perspectives; C: Critical Perspectives;

C: Leadership; D: On Leadership;

A: Professional Values, Ethics, Purpose;

Raymond DuBois, MD, PhD

[01:16:50]

So, I was division chief for about six or seven years and I enjoyed it, but what I found throughout my career is it takes about two or three years to really understand the ropes, it takes two or three years to really maximize the process, and then the last two or three years is really just reaping the benefits of all that. I've sort of been in a situation where I try to do that. You know it's about seven or eight years that you're in a position, and I think your maximal effectiveness wanes after that.

[01:17:24]

T. A. Rosolowski, PhD

[01:17:25]

Really?

[01:17:25]

Raymond DuBois, MD, PhD

[01:17:25]

That's my impression.

[01:17:27]

T. A. Rosolowski, PhD

[01:17:27]

There's a lot of discussion of when should someone step down.

[01:17:30]

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Raymond DuBois, MD, PhD

[01:17:30]

Ten years is probably ideal, but a lot of people stay much longer. Dr. Mendelsohn was president, I think for at least fifteen or sixteen years.

[01:17:40]

T. A. Rosolowski, PhD

[01:17:38]

Sixteen years, yeah.

[01:17:39]

Raymond DuBois, MD, PhD

[01:17:39]

So it just depends on the scenario and the situation. What was happening was the director of the Cancer Center at Vanderbilt was wanting to retire, his name is Hal Moses, and they were looking to try to—they wanted to have an internal candidate take that on, and so they interviewed me and I'm sure they interviewed other individuals, and so I was offered the position and I had already spent a lot of time working in the Cancer Center. I was the Associate Director for Cancer Prevention, we had recruited a lot of people to the Cancer Center to do cancer epidemiology and population studies, and a whole prevention group, so I had been engaged in that all along. The Cancer Center was fairly young, I mean it didn't get started until the early '90s, even though Vanderbilt has such a research prowess since the late '20s. Dr. Moses --you know he discovered TGF beta and is quite a scientist and he's also a pathologist. So he had really set the tone for that Cancer Center, raised tons of money to help support it. I had worked closely with him on some of those projects and I think he thought I would be a good person to take on the job. Eventually, I had done what I had set out to do in GI, and took on another opportunity, and I was in that role for about two years and then I got a call from Dr. Mendelsohn, and I had a tough decision to make, because I had started this job—Dr. Moses had really established the Cancer Center, got it running well. My role was really to just continue getting the Cancer Center grant renewed and recruiting people, and I had been quite successful. We had a really good group that was already established by a previous director and I was just sort of tweaking it and enhancing certain things.

[01:19:50]

[Redacted] It was early into my second year as the director [redacted]

T. A. Rosolowski, PhD

[01:20:50]

And just for the record, I wanted to say you started in the Cancer Center role in 2005.

[01:20:56]

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Raymond DuBois, MD, PhD

[01:20:56]

Right.

[01:20:56]

[Redacted]

Raymond DuBois, MD, PhD

[01:21:06]

[Redacted] I guess Dr. Mendelsohn called me about that time and we started talking about opportunities there [redacted].

Raymond DuBois, MD, PhD

[01:23:55]

[Redacted] I got interested and John, he's a convincing person. He always is very positive and energetic, and he had already had a lot of success there, and so he really wanted to take what Margaret Kripke had done and even extend it further, build the research mission even greater. They had already done some strategic planning to develop new centers, new research centers, new institutes, and he had brought me into that process very early, and you know the founding provost. The reach was so much further and the size was so much larger than what I was involved in at Vanderbilt, and it was entirely focused on cancer. We didn't have to worry about other things there and so there was an advantage to really focusing all the effort on one disease. So I took the job.

[01:25:04]

T. A. Rosolowski, PhD

[01:25:04]

Was it a lengthy process, to kind of consider it?

[01:25:07]

Raymond DuBois, MD, PhD

[01:25:08]

He started calling me and I said no, I just took this job and I'm really trying to make an impact here. And I had always stayed with a job for at least five to seven years, and so it was too early to think about leaving. And my family --my children were raised in Nashville and my wife was involved in the community in a big way.

[01:25:30]

T. A. Rosolowski, PhD

[01:25:31]

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Just for the record, your wife's name?

[01:25:33]

Raymond DuBois, MD, PhD

[01:25:34]

Lisa.

[01:25:34]

T. A. Rosolowski, PhD

[01:25:35]

And I saw she's a photographer.

[01:25:37]

Raymond DuBois, MD, PhD

[01:25:37]

Well, she's done several things. She was a journalist and a writer, and she wrote this book on the history of the Vanderbilt Children's Hospital, that got lots of attention, while she was there, but more recently, she's gotten a lot more engaged in photography and travel and things like that.

[01:25:54]

T. A. Rosolowski, PhD

[01:25:55]

And her maiden name, or does she use her maiden name professionally?

[01:25:57]

Raymond DuBois, MD, PhD

[01:25:58]

She took my name. I think she had some regrets about that, but her maiden name is Abrams; A-b-r-a-m-s. One of the reasons we're here in South Carolina is that she's originally from South Carolina, and when this job came up, her mom has been ill for quite a while and needed some attention, and there are a lot of personal reasons why this made sense, to try to come back to South Carolina.

[01:26:22]

T. A. Rosolowski, PhD

[01:26:23]

When were you married?

[01:26:23]

Raymond DuBois, MD, PhD

[01:26:24]

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We were married in 1980, August 16th.

[01:26:27]

T. A. Rosolowski, PhD

[01:26:28]

And your kids' names?

[01:26:29]

Raymond DuBois, MD, PhD

[01:26:30]

Ethan is our son and Shelly is our daughter; S-h-e-l-l-e-y.

[01:26:38]

T. A. Rosolowski, PhD

[01:26:38]

All right, great.

[01:26:39]

Raymond DuBois, MD, PhD

[01:26:40]

They all wanted to stay in Nashville, so that was a difficult move. Our son had just been born when—he was born in Johns Hopkins and we moved to Nashville when he was just tiny, and our daughter was just finishing the first grade or something.

[01:27:00]

T. A. Rosolowski, PhD

[01:27:00]

Yeah, so their whole young lives were there.

[01:27:02]

Raymond DuBois, MD, PhD

[01:27:02]

They were all Nashville, they see that as their, their home really.

[01:27:06]

T. A. Rosolowski, PhD

[01:27:05]

Their real home, yeah.

[01:27:07]

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Raymond DuBois, MD, PhD

[01:27:07]

Our daughter has moved back to Nashville, so that's good.

[01:27:10]

T. A. Rosolowski, PhD

[01:27:09]

Oh, okay. So a big decision, but you decided.

[01:27:13]

Chapter 07

Provost and EVP at MD Anderson: an Overview

B: Building the Institution;

Codes

C: Portraits;

C: Leadership; D: On Leadership;

B: Building/Transforming the Institution;

B: Fundraising, Philanthropy, Donations, Volunteers;

B: Research;

Raymond DuBois, MD, PhD

[01:27:13]

Yeah, a big decision. My wife, she didn't agree with me, and usually we had agreed on all these decisions. She just thought it was too big of a job, and I had just started that one, and she had some valid points. Looking back, you always reexamine everything, but I tend not to ever look back, so no holds barred, I took the job with John [Mendelsohn, oral history interview] and I must say, I really enjoyed his approach, his openness. We were all, like I said, on the same page, we were developing these new centers and we were raising money like crazy. John had such a way with donors and I learned how his approach works and I was able to really develop that more under his tutelage frankly, in terms of fundraising.

[01:28:05]

T. A. Rosolowski, PhD

[01:28:05]

What was he teaching you about that whole process? Steve Stuyck [oral history interview] called him a secret weapon.

[01:28:11]

Raymond DuBois, MD, PhD

[01:28:13]

Well, he always told a story and you know when he would—he developed strong relationships with donors, so it wasn't just come in, get the money and go. It was, he had a social interaction, he truly wanted to get to know these people. They had social engagements, they traveled together, they did all kinds of things together, and I think it developed trust between John and the donor, which was very effective. John was really good at explaining what it was we were trying to do, why it was important, and what their support was going to do to really accelerate the progress, and then he always gave feedback on how it was going. He never disengaged from the donor, even though the donation had already been made. He continued to have that contact and

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follow-up, and he was relentless, I mean he had so much energy. He would travel anywhere, any time, if he thought it was going to make a difference and bring some support to MD Anderson. Some of these trips, I went with him on, and others I helped prepare information for him to present. He was just relentless, but I think the key, the secret weapon, really the key was John's relationships that he developed, that were so trusting, and then when he made the ask for the support it was an obvious thing, it wasn't something out of the blue, like you know if you give me ten dollars, I'll do this or that. It was really, just a natural process.

[01:29:53]

T. A. Rosolowski, PhD

[01:29:53]

Interesting, yeah, yeah.

[01:29:54]

Raymond DuBois, MD, PhD

[01:29:55]

I don't know how he describes it, but I saw him in action multiple times, and then I got heavily involved in the gift from the Zayed family and the UAE. John had started interacting with that group but his typical approach didn't work as well, I think, with the people in the UAE. They just have a different culture, it's not as open and frank as the people in the United States. So he had sort of given up on that, even though MD Anderson was engaged in taking care of some of the family members and others, who had cancer. What I did was I took a cadre of our physicians over, some of whom were caring for individuals there, and we just kept going and talking about how important personalized medicine was and how them contributing in a big way could really help that process, which ultimately would help any of their family members who had cancer.

[01:31:02]

T. A. Rosolowski, PhD

[01:31:03]

Interesting.

[01:31:04]

Raymond DuBois, MD, PhD

[01:31:05]

Our physicians developed personal relationships with the physicians there and that really helped build trust, and then ultimately, we got \$150 million from the Zayed Foundation, the Khalifa Foundation, I'm sorry, Zayed Khalifa or something, and that ended up in that building that was built. I actually haven't seen that building, but I was heavily involved in planning it.

[01:31:30]

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T. A. Rosolowski, PhD

[01:31:30]

It's pretty spectacular, quite beautiful.

[01:31:33]

Raymond DuBois, MD, PhD

[01:31:33]

That's good.

[01:31:34]

T. A. Rosolowski, PhD

[01:31:37]

Now when you arrived, what was the mandate, what did John Mendelsohn hire you to do, and then were there aspects that you personally added to that vision, I mean things you wanted to accomplish during your time at MD Anderson.

[01:31:59]

Raymond DuBois, MD, PhD

[01:32:00]

That's a really good question. The mandate was --and this was also a mandate from the state and I think also, the Board of Regents-- continue to develop the research to the highest level. We wanted to have people there who were in the National Academy. We wanted to have people that were Nobel Laureates or had won other big prizes, and so from the very start, we were very focused on raising the bar all up and down the organization. So increasing the expectations for our faculty and their research programs and what they were going to accomplish and how impactful their research was. So we designed systems to track it better and give feedback to chairs and faculty, and expectations that we expected them to perform at a higher level. I think it was a mixed result. I think some faculty didn't like that. Some faculty rose to the occasion and really picked up their game and did amazingly better at getting grants and publishing in higher impact journals and things like that, but it is an iterative process and it takes time to really have an impact.

[01:33:17]

T. A. Rosolowski, PhD

[01:33:17]

Now, Dr. Mendelsohn had been at the institution for nine years when you arrived.

[01:33:24]

Raymond DuBois, MD, PhD

[01:33:22]

Right.

[01:00:23]

T. A. Rosolowski, PhD

[01:33:26]

Obviously, he had been very, very busy during those ten years, with the growth of the institution, and what I was curious about is, what was the kind of perfect storm that had come together? The infrastructure had developed, the clinical activity had developed, a lot of things had been built, so that when you arrive with this mandate to develop research, there was a foundation. What were the things that had been set in place to enable this kind of ratcheting up to the next level?

[01:33:57]

Raymond DuBois, MD, PhD

[01:33:58]

Well, John had done a great job of putting some resources in the bank from his fundraising that was ongoing, and I think the thing that really turned the tide was really organizing these different research centers and institutes. There was an Institute for Cancer Prevention, that we got the Duncan family to donate a lot of money to, and the Institute for Personalized Medicine, that was John's sort of personal favorite, because it's an area that he had done research in and wanted to see developed further. I think the key there was getting these teams to work together in the center or the institute, to really attack the problem on multiple fronts. I think that was really the thing that emerged and sort of my mandate, under my role there, was to make that happen in a much bigger way and more widespread across the institution. By getting support for these institutes and centers, it really provided the fuel to make that happen, because you didn't have to just depend on grants. We could forward fund projects and fund really high risk efforts that had high reward, and although all of those didn't pay off, some of them did and it really got us going in a much bigger way I think.

[01:35:18]

T. A. Rosolowski, PhD

[01:35:18]

Well I think the other thing that is overlooked in today's research environment, which rewards the stunning discoveries, is that sometimes a failure can be very educational, you know you learn something.

[01:35:32]

Raymond DuBois, MD, PhD

[01:35:32]

Right.

[01:35:32]

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T. A. Rosolowski, PhD

[01:35:33]

That's why it's called an experiment and research.

[01:35:36]

Raymond DuBois, MD, PhD

[01:35:37]

No, that's true. There were these patients who were unusual responders. With Gordon Mills [oral history interview] and others in the Institute for Personalized Medicine, they really wanted to study those. And not only the unusual responders but the unusual non-responders, and find out why some people respond so well and some don't. There was a lot of work being done on that, and trying to match the changes in the tumor to the treatment so that you had a higher chance of getting a response.

[01:36:10]

T. A. Rosolowski, PhD

[01:36:10]

Now I wanted to ask you about something that's related to the research institutes. When I did my interview with Dr. Mendelsohn, he showed me this graphic.

[01:36:20]

Raymond DuBois, MD, PhD

[01:36:20]

He has a graph of it.

[01:36:21]

T. A. Rosolowski, PhD

[01:36:21]

The cancer care cycle, I mean which is just staggering in terms of its vision. Was that something that had been set in place when you arrived?

[01:36:34]

Raymond DuBois, MD, PhD

[01:36:34]

Well, we discussed it and he wanted to extend that concept a lot further.

[01:36:40]

T. A. Rosolowski, PhD

[01:36:40]

Maybe you could explain it for the record so it's in your interview. [laughs]
[01:36:44]

Raymond DuBois, MD, PhD

[01:36:45]

Well you know, John definitely was the one that sort of developed that concept and idea, so we can just go with whatever he presented.

[01:36:56]

T. A. Rosolowski, PhD

[01:36:57]

Well, just so you can contextualize what you're going to say. What did he explain to you as what this was?

[01:37:00]

Raymond DuBois, MD, PhD

[01:37:01]

A lot of the patients come in when their disease is fairly advanced, and so we get a lot of those patients at MD Anderson because sometimes we're the place of last resort, and instead of just throwing up your hands and saying the game is over, we wanted to develop treatments, third line and fourth line, that we could deploy and really have a better outcome for the patient, but also understand what was going on at the molecular level within each one of these tumors. So the tumor had to be biopsied and stored, and the DNA had to be sequenced, and other pathways examined, to make sure that we understood what was wrong with all these signaling pathways and mutations in the particular tumor, and then tailor a treatment to try to attack those pathways, and then see what happens. Some people would respond really well. I think what happened there, a lot of the leukemia studies with Gleevec after it came out, were done at MD Anderson, because we had so many of those patients with the disease that were pretty far advanced, and so fairly quickly, we could assemble a cohort of patients that could get tested. The early studies with that drug were really done by Dr. Kantarjian, Hagop Kantarjian, who was able to show how effective that was. But then the patients developed resistance, so that led to the next series of steps that needed to be done in terms of what caused the resistance and how to attack that resistance. Since then, third, fourth generation Gleevecs have become much more effective and multiple different pathways are attacked at the same time, and so it's just an iterative cycle that keeps going on and on.

[01:38:54]

T. A. Rosolowski, PhD

[01:38:55]

And the institutes were also involved with not only that intensity of addressing the cancer during the treatment process, but also survivorship and then on the other side, the prevention and early

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detection, all of that.

[01:39:11]

Raymond DuBois, MD, PhD

[01:39:12]

We covered all the bases and even from Mickey LeMaistre [oral history interview], who I got to know while I was there, he was still alive at that time, he really put prevention on the map for MD Anderson, and a lot of cancer centers didn't get that involved, because they were so overwhelmed by patients who had late stage disease. I think that helped change the culture and there still is a lot of interest in prevention there, and a lot of the effort in Texas is at MD Anderson because of that, and I think there's been some headway that's been made. That's also why I was attracted there, because my work really focused on using drugs to prevent early stages of cancer, and I sort of felt like that was also in line with the institution.

[01:40:00]

T. A. Rosolowski, PhD

[01:40:00]

I was going to ask you about the prevention connection. Now did you set up your own lab there as well?

[01:40:07]

Raymond DuBois, MD, PhD

[01:40:07]

I did. We set up a lab in one of the older buildings on the south campus, and I'm even blocking - -It's the one where the animal facilities are down there. So we had to do some renovation to bring it up to specs, but Texas has a lot of support, so I got part of the STARZ Program money that helped with the renovation, so it wasn't a strain on MD Anderson, and then that also helped support my lab during the transition time.

[01:40:39]

T. A. Rosolowski, PhD

[01:40:41]

Now, I had asked you if there were elements of this vision that you brought, things that you wanted to accomplish at MD Anderson. What was sort of your vision?

[01:40:52]

Raymond DuBois, MD, PhD

[01:40:53]

What emerged, and I don't know who is going to remember this in the same way that I do, everybody has a different perspective. What emerged, and this was a challenge that the, I don't know if it's vice chancellor—Ken Shine, brought to the table. I remember him distinctly asking

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me, “Ray, what is it we need to do and what things can we set ourselves up to really be on the cutting edge of what’s happening?” Even at that time, I could tell that you know, cancer immunology was going to become important, immunotherapy was just emerging at the time. We were just understanding, even at that time, what a checkpoint was, much less a checkpoint inhibitor. I had known Jim Allison from before and I knew his girlfriend, [Padmanee] Pam Sharma, and I said we need to recruit people like Jim, because we’re not really on the cutting edge of this. We had a cancer immunology program that Margaret [Kripke, oral history interview] had developed, and they were doing some very good basic science, but it didn’t really have the clinical connection at that point. They were doing a lot of studies on what happened to immune cells in the tumor microenvironment. So I put it on the table, I said I think we need to get into this in a big way. I actually remember calling Jim and talking about it. He had been working with [Christopher] Logothetis, who was in the prostate cancer group, and Logo helped treat some people that Jim knew, and Pam was a urologist and had trained in prostate cancer. So I just said what would it take to bring you back to MD Anderson, because he started off in Smithfield, before he went to Berkeley, and we started the conversation in early 2011, during that time, and he went back and forth. He had some things going at Memorial [Sloan Kettering] he didn’t want to delay getting done, and so that’s when we started working on him.
[01:43:10]

T. A. Rosolowski, PhD

[01:43:10]

Where did you know him from?

[01:43:13]

Raymond DuBois, MD, PhD

[01:43:13]

He’s originally from Alice, Texas, which is my dad’s hometown in South Texas, and I had met him at—well, I met him first at the Aspen Cancer Conference, which is an annual meeting I’ve been involved with for the last twenty-five years, and we had invited him to come there and speak, so that’s where I first—and I was really intrigued by him, because he’s kind of a crusty guy, he loves music and all these other things, and so you know, he’s got real deep roots in Texas. He went to the University of Texas in Austin. So we started the process and I think that he was a little suspicious about what could be done to make it worth his while, but I kept talking to him and pursuing it and finally he could see that this may be something that would be worth doing. And then we went through a transition with leadership when Dr. Mendelsohn stepped down and Dr. DePinho [oral history interview] started, but luckily, Dr. DePinho was very supportive of that idea, because he had done—Jim had such groundbreaking research, and he really supported it totally, and so we were able to, just after—I think right even when Dr. DePinho was just transitioning, we were able to get his offer letter together and finalize that. I think that, of anything, was one of my contributions, because we really need to get into that area, it’s having such a clinical impact. Even though we sort of weren’t on the forefront of it, I think

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we were able to catch up and make a big difference. And then he got the Nobel Prize, so everybody's excited about that.

[01:44:58]

T. A. Rosolowski, PhD

[01:44:58]

Absolutely, absolutely. Now, in terms of working with the faculty—well, I guess another question I wanted to ask was what was the significance in shifting the title from chief academic officer to provost?

[01:45:10]

Raymond DuBois, MD, PhD

[01:45:11]

Well, I think it made the role a much more academic role and less of a business role, because you've got a CFO, CMO, CAO, and people had interpreted that more as sort of the business of doing the cancer effort, and so I suggested provost. It wasn't an original idea, I think they had done it in Dallas, at UT Southwestern, and were thinking of it in other places. It was a big change for MD Anderson and not everybody was excited about that.

[01:45:46]

T. A. Rosolowski, PhD

[01:45:47]

Really?

[01:45:47]

Raymond DuBois, MD, PhD

[01:45:48]

There was some concern about changing it from CAO, chief academic officer, but ultimately after it was done, everybody pretty much accepted it.

[01:46:00]

T. A. Rosolowski, PhD

[01:46:00]

It seemed to me like a kind of messaging thing.

[01:46:02]

Raymond DuBois, MD, PhD

[01:46:02]

Yeah, it was, it was. I think we wanted to elevate the academic performance on all levels, and having the provost there was a way to do that. MD Anderson was such a clinical place, you know and a big clinical enterprise, this really gave it an academic tone, which I think was

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important, although I've heard they've done away with it.
[01:46:29]

T. A. Rosolowski, PhD

[01:46:29]

Yeah, they have. Well you know.

[01:46:31]

Raymond DuBois, MD, PhD

[01:46:31]

Things come and things go.

[01:46:32]

T. A. Rosolowski, PhD

[01:46:32]

Decisions are always made at a moment in history, with a context.

[01:46:36]

Raymond DuBois, MD, PhD

[01:46:36]

Right, right.

[01:46:38]

T. A. Rosolowski, PhD

[01:46:38]

So this seems like an important message to send at this moment.

[01:46:41]

Raymond DuBois, MD, PhD

[01:46:42]

Right. I think it was and certainly, we elevated the expectations and tried to raise the bar for performance.

[01:46:48]

T. A. Rosolowski, PhD

[01:46:49]

Now you inherited a situation, the context from Margaret Kripke, who had been doing a lot of work.

[01:46:55]

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Raymond DuBois, MD, PhD

[01:46:55]

Margaret did a great job. She really had brought the place to a very good situation. She had done things like develop a Mentoring Academy, that I continue to support, and really brought several of the faculty through leadership training that they sorely needed. One of the problems I saw is that the faculty were so busy taking care of patients, that they didn't have time to take care of themselves or develop their careers, and so we had to make sure that there was a mentoring plan in place for every single faculty. It was clearly delineated in their offer letter, so that they could develop their own careers and not just sort of fade into the background there.

[01:47:44]

T. A. Rosolowski, PhD

[01:47:45]

Wow, that's interesting, that that was put in their letter.

[01:47:47]

Raymond DuBois, MD, PhD

[01:47:48]

Yeah, yeah. Steve Tomasovic [oral history interview] helped with that and I think Margaret had started the concept, but we definitely kept it and emphasized that as important for all the recruits, and then even enhancing the mentoring program more. Janis Apted [oral history interview] was involved in that and we continued to evolve and make those programs even more deeper and more effective.

[01:47:15]

T. A. Rosolowski, PhD

[01:47:17]

We're at about five minutes of five right now. Do you want to close off for today? I notice you're looking at your—someone is binging you there. [laughter]

[01:47:25]

Raymond DuBois, MD, PhD

[01:48:29]

So, whatever you think.

[01:48:30]

T. A. Rosolowski, PhD

[01:48:30]

Yeah, why don't we close off for today.

[01:48:32]

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Raymond DuBois, MD, PhD

[01:48:32]

Okay, okay. Are you getting what you need?

[01:48:35]

T. A. Rosolowski, PhD

[01:48:36]

Absolutely. Yeah, yeah. Well, let me just say for the record, it is about five minutes of five and thank you for your time today.

[01:48:45]

Raymond DuBois, MD, PhD

[01:48:45]

Oh, you're welcome.

[01:48:47]

Raymond Nelson DuBois, Jr., MD, PhD

Interview Session Two

Chapter 00B

Interview Identifier

T. A. Rosolowski, PhD

[00:00:02]

It is about two minutes of seven on the 15th of November, 2018, and I am with Dr. Raymond DuBois for our second interview session together. You were returning to the subject of your decision to leave Vanderbilt.

[00:00:17]

Chapter 08

On Growing as a Leader, First Impressions of MD Anderson, and a First Day on the Job

A: Overview;

Codes

C: Leadership; D: On Leadership;

A: Professional Values, Ethics, Purpose;

B: MD Anderson Culture;

A: Personal Background;

B: Building/Transforming the Institution;

B: Growth and/or Change;

B: Institutional Mission and Values;

B: MD Anderson Culture;

Raymond DuBois, MD, PhD

[00:00:18]

I was at Vanderbilt for a long time, sixteen years, and it was a wonderful place and really allowed me to develop my research and my administrative career, so there are a lot of positive things there. There's always a push and a pull when considering a new institution, and there was a huge pull to go to MD Anderson, because of the increased breadth and depth of the programs, the international reach, the prestige of the institution, so that was a huge component. [Redacted]

T. A. Rosolowski, PhD

[00:02:44]

Now in terms of making that decision, obviously you mentioned going to a larger institution, the various challenges. What did that move mean to you, as you looked ahead to your evolution as a leader?

[00:03:00]

Raymond DuBois, MD, PhD

[00:03:01]

Well obviously, it was a much bigger administrative job than I realized at the time, just because the Cancer Center at Vanderbilt, we had a total of about 150 investigators, we had a fairly small amount of space. We were in the process of expanding the cancer clinics and outreach, but it was really focused mainly right on the campus there at Vanderbilt, in the center of Nashville. Clearly, MD Anderson had a much bigger operation, many more employees and many more faculty, because all the faculty were working on some aspect of cancer there. I can't remember

the exactly number, but there were 1,200 to 1,400 faculty there, so it was an enormous increase in the administrative role and burden, and other issues that had to be dealt with. I think I was a little bit shocked when I got there, because I didn't completely realize the scope of that, but it did allow me to sort of up my game in terms of dealing with a more complex organization and a much larger campus in terms of the space allotted to the cancer mission. There were fifteen million square feet of space total there, that we were overseeing, and at the time, about 19,000 employees. So it was a much, much bigger enterprise. After a while I did adapt to it and I learned how to function in a much larger institution and more complex administrative structure. [00:04:47]

T. A. Rosolowski, PhD

[00:04:48]

What do you think—well, why were you selected for this particular role? What do you think John Mendelsohn and the executive team saw in you that would be a good fit with MD Anderson at that time?

[00:05:00]

Raymond DuBois, MD, PhD

[00:05:01]

You know that's a good question. I don't know who all was interviewed for the job, they didn't share that with me, so I don't know why they picked me over some of the other applicants, but I think the background that I had and doing a postdoc in a very basic science laboratory with Dr. Nathans, and then starting a laboratory that really focused on the translation of that science to the clinic. And then I did have the administrative experience of running a clinical division, of running the Cancer Center at Vanderbilt, and I think I was prepared to take on that kind of administrative role. I had published some fairly high impact papers in prestigious journals, and so I had that experience of what it takes to really publish in the highest impact. I had had grant funding for my whole career, so I know how to do that, and I served as president of the American Association for Cancer Research, which is a very large organization, and so I had networked with all the sort of cancer scientists around the world and just fulfilled a lot of the criteria, I think that they were looking for.

[00:06:26]

T. A. Rosolowski, PhD

[00:06:26]

Well it also could serve as a model and speak to the experience of the faculty, which is so key.

[00:06:33]

Raymond DuBois, MD, PhD

[00:06:34]

And I did know a number of faculty just from research networks and social networks. I knew

Dr. Hong [oral history interview], who had been there for a long time, I knew Patrick Hu, who had trained at Hopkins, and I knew him from some of those days, and so it was a welcoming group I thought.

[00:07:00]

T. A. Rosolowski, PhD

[00:07:03]

Now you mentioned, you alluded to the fact that when you got there it was a much larger role to take on than you had originally expected, and I was remembering that model you had, of the two years to learn the ropes and the two years to get things started and implemented, two years to start reaping the benefits. So I was wondering, what about that first two years? What were you learning about the institution? I guess maybe we could start with what struck you as being kind of unusual or unique qualities about MD Anderson, both positives but also challenges.

[00:07:40]

Raymond DuBois, MD, PhD

[00:07:40]

Well, one of the things that really impressed me when I first visited the institution was that the minute you walk in there and you start interacting with people, you can tell that the people who work there are very dedicated to their jobs. They take a lot of pride and are very focused on the patients and what the patients needs are and how to deal with those, and I was very impressed by that because of the patient centered care and the focus on the patients. Not only on just diagnosing and treating their cancer, but also dealing with the psychosocial problems that people encounter when they get that diagnosis, dealing with the side effects of some of the treatments, and just getting them and their whole family through the process. I thought it was really the best place I've ever seen, that was designed to really engineer that process, to make the most of it. I was very impressed by that and everybody I met, I could tell, felt pride in what they were doing and really wanted to do the best job possible for the patient. There are not many places where that's so palpable, when you just come into the institution.

[00:08:59]

The other thing is, you know going back in my history from my South Texas days, one of my aunts, one of my great aunts, was diagnosed with cancer, and she lived in a nearby town to us. Her name was Geraldine Mixon, she was a sister in-law to my grandfather, and she went to the local doctors, they couldn't really figure out what was going on. They knew something was amiss and she was getting worse and ultimately, somebody locally said you should take her to MD Anderson. That's really the first I'd ever head of MD Anderson. So my uncle took her to MD Anderson and they were able to figure out what was going on. She had colon cancer basically and it was advanced, but they were able to do surgery and fix some of the things that were causing her symptoms. Ultimately, she did die from the cancer, but she really got a lot better after her visit there, she really liked the quality of care she was getting, and it really made,

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I think the process much more acceptable. She knew what was happening, what she had, and it really made the rest of her life much better than it would have been if she hadn't have gone there. At the time, the only real treatment was surgery and if surgery didn't work, there wasn't a lot of other options for patients. So I knew it was a special place at that point and the whole family was very thankful for the fact that you know in the state of Texas, there was such a place that you could ultimately go to, to really get care for cancer.

[00:10:42]

So you know, my first two years there were just really busy, I mean it was crazy. I still remember the first day on the job, it was just one of those days that you're just like a fire hose, trying to understand all of the information, and on that day, we got a call from my daughter's college roommate. She was going to University of California at San Diego and she and a friend had gone on a hiking trip in the Sierra Mountains, north of the campus there, further north, and they had gotten lost on this hike. The ranger had discovered their car, it looked like somebody had broken into it, and so she supposedly was supposed to come back to San Diego and take a test, she didn't make that, and so then the roommates got nervous and they called me and my wife. So we had to drop everything and get a flight to go out there, to try to see what was going on. Luckily, even before we got there, they were searching for her and they found her and her friend and what happened is they had hiked up very high in the mountains and there was a snowfield and you don't know where the crevasses are or anything, so they couldn't cross it. They had to come back and go back out the way they had come in and it took a day or two longer than they had planned, so that was really scary, but it all turned out okay.

[00:12:22]

T. A. Rosolowski, PhD

[00:12:22]

Yeah, no kidding, talk about the curveball. [laughter]

[00:12:27]

Raymond DuBois, MD, PhD

[00:12:27]

I know. I went into Dr. Mendelsohn's office and he wasn't there, and I talked to Adrienne Lange, who was his chief of staff and I said, "Adrienne, you're not going to believe this, but I have got to leave now to go deal with this." They were very supportive and helped get the flights and changed the schedule, and everybody pitched in and made it work, so that was also very reassuring.

[00:12:52]

T. A. Rosolowski, PhD

[00:12:53]

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So what happened on your real first day of the job?

[00:12:58]

Raymond DuBois, MD, PhD

[00:12:59]

It took a while to get back from that. Actually, we were flying on American, and went through Dallas, and so by the time we got to Dallas, they had called back and said they had located them and they were okay. My wife went ahead and continued the trip out there. My son and I flew back and they were actually still in Nashville, so I flew back to Nashville with him and then made sure that weekend, that everything was okay, and then came back to work on Monday. It was a lot going on.

[00:13:30]

T. A. Rosolowski, PhD

[00:13:31]

Yeah that's—I mean, it takes a bit to recover from a family—even the what ifs.

[00:13:34]

Raymond DuBois, MD, PhD

[00:13:34]

Yeah, yeah. No, we had feared the worst.

[00:13:37]

T. A. Rosolowski, PhD

[00:13:37]

Of course, yeah.

[00:13:39]

Chapter 09

Building Research from the Provost's Office

B: Building the Institution;

Codes

C: Leadership; D: On Leadership;

B: Building/Transforming the Institution;

B: Research;

B: Institutional Processes;

B: Overview;

A: Definitions, Explanations, Translations;

B: MD Anderson Culture;

B: Working Environment;

C: Mentoring; D: On Mentoring;

Raymond DuBois, MD, PhD

[00:13:41]

When an administrator like Margaret Kripke leaves and some of the administrative support leaves, and so you have to rebuild your staff and all that stuff, so that's what I really focused on and luckily, Maureen Cagley, who had worked with Bernard Levin [oral history interview] in the Cancer Prevention Division, was interested in taking the job, and she and I really hit it off well and her work ethic was what I was looking for. She had been at the institution for a while, so she understood how things worked, and she really helped me out a lot in setting up the office and moving forward from there. I think she's still there.

[00:14:25]

T. A. Rosolowski, PhD

[00:14:26]

She is. The role, when you hired her?

[00:14:28]

Raymond DuBois, MD, PhD

[00:14:29]

She was my administrative, executive administrative assistant or something. I can't remember the exact title and I think now, she may have been promoted to a vice president.

[00:14:38]

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T. A. Rosolowski, PhD

[00:14:39]

Yeah, she is.

[00:14:40]

Raymond DuBois, MD, PhD

[00:14:40]

There were lots of things that needed to be done, I mean we dealt with all of the policy and regulatory stuff with regard to the research operation, both clinical research and translational research, and there were some issues that had come up from time to time, on conflicts of interest and things like that. We sort of organized that in a way that worked more efficiently. There's always issues with regard to education. We had the arrangement with the University of Texas Graduate School in Houston, and there was always concerns about who's supporting what and who's doing what, and so I started meeting with the dean of the school and we were working on issues to resolve some of that stuff.

[00:15:34]

T. A. Rosolowski, PhD

[00:15:34]

And who was the dean in 2007?

[00:15:36]

Raymond DuBois, MD, PhD

[00:15:37]

I'll have to think about that. I see his face, but I just can't remember.

[00:15:41]

T. A. Rosolowski, PhD

[00:15:42]

Oh, was this George Stancel [oral history interview]?

[00:15:43]

Raymond DuBois, MD, PhD

[00:15:43]

Yeah, George Stancel was the dean. One of the things we actually did during my time was we recognized that, so that we had co-deans; a dean from MD Anderson, and then a dean from UT Houston, and I think it really solved a lot of the problems they were having administratively, because both institutions were equally represented.

[00:16:09]

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T. A. Rosolowski, PhD

[00:16:10]

And when you say reorganized, what was the body you were creating for these deans?

[00:16:16]

Raymond DuBois, MD, PhD

[00:16:17]

Well it was, I guess the leadership unit for the Graduate School, in terms of setting the programs, the coursework and recruiting students, and career counseling and all that stuff.

[00:16:31]

T. A. Rosolowski, PhD

[00:16:31]

So this was the leadership unit within the Grad School, but then there were representatives from other institutions with this? I'm trying to understand.

[00:16:38]

Raymond DuBois, MD, PhD

[00:16:39]

It was really between MD Anderson and UT Health Science Center at Houston. I think it had been chartered that way but the dean had always been just completely from UT Houston and sort of conferred with MD Anderson administrative staff about the school. We did provide support for it but you know, having an MD Anderson faculty and a Health Science Center faculty as co-deans, really, I think it brought the school together in ways that it hadn't been before and I've heard that it's working really well, so that's been positive.

[00:17:20]

The other thing, going back to the attraction to Houston, you know just prior to accepting this role, the state had decided to invest \$3 billion into cancer research, and set up the Cancer Prevention Research Institute of Texas, and we didn't have anything like that in Tennessee. So I was very positive about that, because having that kind of state support really meant a lot. It was much easier to recruit faculty, and they even provided funds for the recruitment outside the state of Texas, to MD Anderson, and we were able to get a number of those grants for recruits that we had brought to Houston. So that was a very, very extremely positive attraction to go there.

[00:18:07]

T. A. Rosolowski, PhD

[00:18:09]

Now as you're recalling, I mean again, kind of that first year, first months, when you're getting to know the institution, what had been set in place that you could build on really well and what were some of the obstacles that you saw, that really needed addressing to move forward this

vision?

[00:18:27]

Raymond DuBois, MD, PhD

[00:18:28]

Dr. Kripke had done an outstanding job. She had set up a Leadership Academy that helped train faculty in different leadership skills, and I think that was working really well and was an important need for the institution. She had set up certain ways to deal with requests for space and resources, and set some requirements for that, and the space, the office space for each individual faculty was set at a certain amount of square feet and all that, so you didn't have—when somebody wanted to get a throne or something for their office, you didn't have to worry about that, because it was all standardized, and I really liked that. The other thing that Margaret had done was make things a lot more transparent, and I think that eased some of the faculty's fears about who was getting what, and if they were getting as much as they deserved, whatever. That was already in place. There was a need to increase the faculty's amount of salary they covered on their grants. I think it was set at 30 percent or something, and there were a lot of people that were not complying with those requirements. For example, here at the Medical University of South Carolina, our faculty cover about 60 percent of their salary on grants, and we're also a state institution. It varies across the country but it's usually much higher than 30 percent. I think the resources have always been plentiful at MD Anderson, so people haven't had to worry about it, but it does increase the amount of external funding that comes in and also increases the quality of the science, because it's all peer reviewed and people from outside the institution, outside the state, review it to make sure it's of the highest quality, so that it can be funded. So we wanted to increase the bar a little bit there. So we increased that requirement to 40 percent, and that did create some angst among the faculty but most of them were able to comply. I don't know what it is now, but I think that everybody got up to that level eventually.

[00:21:01]

T. A. Rosolowski, PhD

[00:21:02]

I actually don't have the figure in mind. Yeah, I can imagine it had caused some consternation, but it was making a culture shift too.

[00:21:10]

Raymond DuBois, MD, PhD

[00:21:10]

Right, right.

[00:21:11]

T. A. Rosolowski, PhD

[00:21:11]

And so that obviously was a huge part of what you wanted to accomplish.

[00:21:15]

Raymond DuBois, MD, PhD

[00:21:16]

One of the things that I noticed after we got there, was that when one of the clinicians submitted a protocol to start a clinical trial to test a new drug or process, it took over 250 days, from the submission of that application, until the trial got activated, on average, so I could tell there was a real problem there, with that administrative structure. So I knew this person who had worked at Vanderbilt, who was at Seattle, at the University of Washington, and he was really what we would call a process engineer, and so he always looked at processes in place, try to find the bottlenecks and then come up with a solution to make it more efficient. So I called him in and he spent several days talking to all the people in the IRB and in all the regulatory components of the clinical process and he came up with several issues. One of the biggest problems was that it was a linear process, so once you started, you had to go through all these steps and you couldn't go to the next step until you got the first step done, you couldn't go to the third step until you got the second step done, even though these processes weren't linked really. So the first thing we did was make it a parallel process, so they could go in multiple—meet for multiple approvals simultaneously, to get to the end, and then we had to staff up some of the offices to make sure they were properly staffed to deal with the load. By the time I left MD Anderson, we had gotten the 250 days down to about 80 or 90 days. I felt really good about getting that improvement in place.

[00:23:08]

T. A. Rosolowski, PhD

[00:23:08]

No kidding, no kidding.

[00:23:09]

Raymond DuBois, MD, PhD

[00:23:10]

The other thing that Margaret did just before she left the office was she appointed Liz Travis [oral history interview] to be head of Women's Affairs, which I think was a really good idea and I continued to support that. The other thing that I did was I charged a committee that Liz led, that looked at all of our faculty, not just the women, but obviously, importantly, the women as well, and decided which ones were eligible for national prizes or awards. We started a systematic process to identify those folks and make sure that they were nominated for as many awards as these faculty deserved, and I think that actually has been extremely successful. There's been a lot more national recognition of what the faculty do and the department chairs just didn't have the time to do it, they were so busy, and Liz was able to have access to a writer who could help put all the documents together and edit them properly. Obviously, everybody

has to look over those to make sure they're accurate and say what they're supposed to say, but that really made the process a lot more efficient and enabled them to make deadlines required to get those nominations in. And I know, there's a number of faculty that are in prestigious organizations like the American Association for the Advancement of Science Fellows, the American Association of Physicians, and other things that require a nomination to get considered, and even in the National Academy of Medicine and the National Academy of Sciences. More faculty in those roles than were there before we put that process in place, and so I think that was something I was really proud of and something that was needed for the institution. And then, like we talked about yesterday, I really wanted to have a mentoring plan written out and well thought out, that was included in the offer letter, so that mentors could be identified and intervals for meetings could be outlined and those things could get going as soon as possible after faculty started their careers there.

[00:25:31]

T. A. Rosolowski, PhD

[00:25:32]

What do you see as the value of mentoring, why is it so necessary in this context?

[00:25:36]

Raymond DuBois, MD, PhD

[00:25:36]

Mentoring is really crucial for a lot of reasons, because people who have gone through the process know where some of the places are that you can really get hung up, and also they have networks of individuals who are out there that the mentee can have access to. They can also write letters of recommendation for awards, promotions and things like that, and so they can really help make sure that your career stays on path and facilitate making some of those things happen directly, so it's really important. It was something that I don't think was done as much as it should have before I got there, I know Margaret was concerned about it and did some things to help out but let's face it, the MD Anderson faculty and the chairs are so busy. You know, they were taking care of these extremely sick patients or engaged in their own research, and they just weren't as engaged in mentoring as I thought was needed, so we did a number of things to try to enhance that. We had workshops where we brought in experts in grant writing and manuscript writing, and experts in certain aspects of conflict resolution and other things, and in those workshops these experts would give a talk and then all the faculty could ask questions and use examples in their own experience, about how to solve problems. I think it really did help out some of the faculty.

[00:27:04]

T. A. Rosolowski, PhD

[00:27:05]

Now when you are instituting a change of that kind, was there any kind of accountability set in

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place for department chairs or division heads, to begin to kind of see how effectively people were doing the mentoring?

[00:27:20]

Raymond DuBois, MD, PhD

[00:27:21]

Yeah. That was being tracked and there were reports that needed to be made, documenting those meetings and minutes of the meetings and other things. I don't know that everybody complied a hundred percent, but there was a lot more attention to it and when I had meetings with chairs or division chiefs, it's something we talked about. They were really in charge of recruiting new faculty for their group, so I think most of them took it fairly seriously and it was something that became a part of their evaluation, you know how their mentoring plan was going and how they were mapping it. And then obviously over time, you can measure the success of the new recruits and how they're doing.

[00:28:12]

T. A. Rosolowski, PhD

[00:28:12]

Right. Well, you know I ask because you can plan to attend a forty-five minute workshop or hour-long workshop, but then the problem of actually implementing it in your day, which already is straining at the seams with things to do.

[00:28:26]

Raymond DuBois, MD, PhD

[00:28:26]

That's always a concern there, just because there's more work to do than anybody can physically do it. That brings up the issue of burnout, physician burnout and other burnout, and we also dealt with that, although it's become a lot more recognized nationally now than even back then, during that 2007 to 2012 time period. I think it's something that the faculty at MD Anderson are always at risk for.

[00:28:59]

T. A. Rosolowski, PhD

[00:28:59]

What were you noticing that was bringing this to your attention?

[00:29:02]

Raymond DuBois, MD, PhD

[00:29:02]

Well you know it usually comes out when there's an outburst of anger or depression. At all institutions, their faculty have to deal with these issues. We did have a couple of faculty suicides

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that really opened my eyes, and some of those were not totally related to the workload but it always plays a factor in how their psyche is working. So we became a lot more aware of that and much more open to referrals for counseling and other things, in certain people that really needed some help.

[00:29:44]

T. A. Rosolowski, PhD

[00:29:45]

What were some steps taken in addition?

[00:29:50]

Raymond DuBois, MD, PhD

[00:29:51]

We had some people come in to talk to leaders and others, to make sure they understood the signs and symptoms of these kinds of things and then, you know, when people claim that they're going to do something like that, we took it a lot more seriously and really made sure there was counseling for all those individuals that needed it.

[00:30:18]

T. A. Rosolowski, PhD

[00:30:19]

The institution is continuing to address how exactly to identify and make it okay for people to say, "I had a conversation with so and so, I'm a little concerned, who do I talk to, how do we get help," because again, it is a culture change. This thing happens when you observe behavior changes in somebody.

[00:30:39]

Raymond DuBois, MD, PhD

[00:30:40]

In past years, in decades, for decades in academic medicine, everybody was trying to be as stoic as they possibly could and nobody wanted to talk about it. But I do think you're right, having that conversation upfront and not feeling embarrassed about talking about it, is the first step to make sure that it gets dealt with.

[00:31:03]

T. A. Rosolowski, PhD

[00:31:04]

Yeah. I mean, UT System is certainly taking it very seriously now, holding a big symposium a year and a half ago, all of that.

[00:31:13]

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Raymond DuBois, MD, PhD

[00:31:14]

Yeah, and I think the experiences there have influenced me even in my future jobs, because now we have developed a wellness program for our medical students, because they're also faced with all kinds of stresses and strains. We started it right when I came here in 2016, and so we're only two years into it, but I think it's helped out a lot. It enables the students to talk in groups about things that they're concerned about. We have a medicine cup day where we have all kinds of races, and they try to dunk the dean in the water well and stuff like that, to blow off some steam, and I think it's really helped.

[00:32:01]

T. A. Rosolowski, PhD

[00:32:01]

Well, research shows that medical students come in really ideological and then wow, crash and burn.

[00:32:08]

Raymond DuBois, MD, PhD

[00:32:08]

Yeah, it can happen.

[00:32:09]

Chapter 10

Strategic Planning, Budgets, Physical Space, and Industry Partnerships

B: Building the Institution;

Codes

C: Leadership; D: On Leadership;

B: Building/Transforming the Institution;

B: Research;

B: Institutional Processes;

B: Overview;

A: Definitions, Explanations, Translations;

B: MD Anderson Culture;

B: Working Environment;

B: The Business of MD Anderson; C: The Institution and Finances;

B: Industry Partnerships;

B: Controversy;

B: MD Anderson and Government;

D: On Texas and Texans;

B: MD Anderson Product Development and IP;

T. A. Rosolowski, PhD

[00:32:10]

So important to put the supports in place. What were some other—well, let me ask this question. When you arrived, obviously you had working relationships with Dr. Mendelsohn and other people on the executive team. Who were those folks and tell me a little bit about your working relationships and your shared vision for the institution.

[00:32:33]

Raymond DuBois, MD, PhD

[00:32:34]

Well, the team was really led by Dr. Mendelsohn, and Tom Burke was the physician in chief, and I was the provost and executive vice president, really for all the academic and research affairs. Then eventually, they appointed me to chair the international whatever --oncology committee. We had a lot of international connections at different centers abroad, and so that was a big enterprise actually back then, and then Leon Leach, who was the financial and business executive vice president. We met every week. There was an agenda. We all got along extremely well. We were all on task with the mission and goals for MD Anderson, which they had just gone through a strategic planning enterprise a few months before I got there, so those were all clearly articulated and I was totally onboard with those.

[00:33:34]

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T. A. Rosolowski, PhD

[00:33:35]

What were the elements of that strategic plan?

[00:33:36]

Raymond DuBois, MD, PhD

[00:33:37]

Well that was the plan that outlined the development of all these new institutes and research centers, and it really served as the basis for the funding campaign, the philanthropic campaign, that was started to support those endeavors and raise money for all those programs. So all of that was totally aligned. And you know, I think the finance and business part of the institution wanted to make sure that we were optimizing our investment in new faculty, and so by me increasing the requirement for extramural support for their salary, they thought that was a real positive thing and took a little bit of a burden off the other parts of the institution to support that. We also had a Board of Visitors and there was an executive group as a part of that and they were very engaged as well, and from time to time we would meet with them and give updates about what was going on, what we were excited about, what we were trying to do to make the whole system work better. There were a lot of business people on there, so they always gave a lot of feedback and suggestions about how to improve.

[00:34:50]

T. A. Rosolowski, PhD

[00:34:51]

Who was the president of the Board of Visitors at that time, do you recall?

[00:34:54]

Raymond DuBois, MD, PhD

[00:34:55]

You know that's a good question, because it changed during my time, so I'd hate to say the wrong person.

[00:35:03]

T. A. Rosolowski, PhD

[00:35:03]

That's okay. It's one of the things we can correct later.

[00:35:05]

Raymond DuBois, MD, PhD

[00:35:05]

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It was the guy who came from Exxon Mobil, I think.

[00:35:07]

T. A. Rosolowski, PhD

[00:35:08]

Is that Ben Love? No, no.

[00:35:09]

Raymond DuBois, MD, PhD

[00:35:10]

Love started—he was there right when I started and he stepped down and another person came on

[00:35:14]

T. A. Rosolowski, PhD

[00:35:14]

I can't remember the name of the guy.

[00:35:15]

Raymond DuBois, MD, PhD

[00:35:15]

Love was very dedicated to MD Anderson and I got to know him. Also, he was a grad of Vanderbilt, so he and I shared interests in both institutions.

[00:35:26]

T. A. Rosolowski, PhD

[00:35:26]

Interesting. Well, we can add that other name later. This is a little bit of a complicated question, I was trying to figure out how to ask it actually. So you're in this new situation with these individuals and you have this—you have an affinity to their strategic goal. Now the question I wanted to ask is what was being assumed, that you didn't realize until later when you looked back? Because you know, there's something, here's this institution. What were the assumptions you were making about the future of the institution?

[00:36:01]

Raymond DuBois, MD, PhD

[00:36:02]

Well, you know based on the interviews that I had with everybody and my understanding of things, I think we were all pretty well aligned in terms of improving the quality and impact of the research. There was always an issue to try to see more clinical patients and generate revenue that way, and so we were constantly looking at that, and Tom Burke did a fantastic job of managing

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that whole enterprise. During my whole time there, our margins were always pretty good. I think the lowest margin we made was around \$250 million and the highest was well over \$500 million, and so for an academic institution, that is a very good outcome. But it can always be improved, and we were constantly examining that and trying to make the clinical appointment scheduling more efficient, and the whole process as efficient as possible for the patients, because patients come first. Everybody's concerned about that. So I guess one of the things that—I don't know if I was surprised, but that became clear-- is that the financial team really wanted to make sure that everything we did had some return on the investment. So there was a lot more focus on that sort of business aspect of the institution that I had seen at Vanderbilt or other places, but in the long run, I think it was probably well placed and made us all conserve resources a lot better and really think about things before we invested in new equipment or infrastructure to build new buildings and other things, to make sure that it was something that was really going to make an impact.

[00:37:58]

T. A. Rosolowski, PhD

[00:37:59]

Was there a particular discussion that you recall around this issue, I mean just to give an example?

[00:38:04]

Raymond DuBois, MD, PhD

[00:38:06]

That's a good question. There were lots of discussions about building the new buildings on the South Campus, and whether or not that was where we wanted to spend. [background noise]

[00:38:22]

T. A. Rosolowski, PhD

[00:38:22]

Yikes.

[00:38:23]

Raymond DuBois, MD, PhD

[00:38:23]

I don't know what that is. I've never heard that before.

[00:38:27]

T. A. Rosolowski, PhD

[00:38:27]

Hopefully it will be brief. [laughter]

[00:38:29]

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Raymond DuBois, MD, PhD

[00:38:30]

We can move to another room if we need to. And so, we had a lot of discussions about that but ultimately, we decided to build those buildings, as you know, and one of the issues what the Imaging Center [Center for Advanced Biomedical Imaging—CABI] down on the South Campus.

[00:38:45]

T. A. Rosolowski, PhD

[00:38:45]

The Proton Therapy Center?

[00:38:46]

Raymond DuBois, MD, PhD

[00:38:47]

No, that had already happened before I got there.

[00:38:49]

T. A. Rosolowski, PhD

[00:38:49]

Oh okay, that's right, for 2005, yeah.

[00:38:52]

Raymond DuBois, MD, PhD

[00:38:50]

That actually was a private venture, which I think worked out well. Now, that equipment is pretty old but at the time it was really cutting edge.

[00:39:00]

T. A. Rosolowski, PhD

[00:39:00]

And pretty controversial too.

[00:39:01]

Raymond DuBois, MD, PhD

[00:39:01]

Yeah it was. There are still some issues with that, because you know they're advertising it for prostate cancer. It doesn't really offer a huge advantage over current therapy for prostate cancer. It's extremely important for childhood cancers, where the cancer is located close to the spinal cord and we use it a lot for that, and it really has a better—it's better than the standard therapy

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for those purposes, but that's not a huge population of patients.

[00:39:30]

T. A. Rosolowski, PhD

[00:39:30]

Right. So, you were—the Imaging Center.

[00:39:36]

Raymond DuBois, MD, PhD

[00:39:35]

You know, there was the Imaging Institute.

[00:39:38]

T. A. Rosolowski, PhD

[00:39:39]

Oh, the Center for Advanced Biomedical Imaging.

[00:39:41]

Raymond DuBois, MD, PhD

[00:39:42]

So, there was lots of discussions about that, because we had to put in a lot of very expensive equipment to make that happen, you know basically MRI machines that could scan animals. To make isotopes, you had to put in a whole bunch of specialized equipment for that and you know, it was very expensive. I think it was the right thing to do but there were lots of questions about whether or not that was going to be a good return on that investment and ultimately, before everything was said and done, we did have to change the leadership of the director there, who had gotten a little bit off track. I think everybody in the end, thought it was justified and went ahead with it, and I think it's one of the leading imaging research centers in the country right now.

[00:40:39]

T. A. Rosolowski, PhD

[00:40:40]

I interviewed Donald Podoloff [oral history interview] and yeah, it was pretty interesting to hear his narrative of how the field had basically changed, and it was even hard to communicate to people, the way in which it had changed, to require some of the really sophisticated equipment that was being put into CABI.

[00:41:01]

Raymond DuBois, MD, PhD

[00:41:00]

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Basically, we had to make—they wanted to make their own unique isotope, so that requires digging a huge hole in the ground and being able to generate those isotopes right on the property, and I think that thing cost \$80 million just in and of itself, so it's a huge investment.

[00:41:20]

T. A. Rosolowski, PhD

[00:41:20]

My gosh. Yeah.

[00:41:22]

Raymond DuBois, MD, PhD

[00:41:22]

It was an emerging field, one that everybody thought was going to be important for cancer, and so we went forward with it. Then, there were other—you know the Smith Building is the one that I started off in, so that is one of the older buildings there and it was really out of date. I think they had done whatever they could to renovate it and keep it up, but we really needed some new, modernized research space there, and so ultimately that did happen. I don't know if they built more, but we built two sizeable buildings down there on the South Campus.

[00:41:58]

T. A. Rosolowski, PhD

[00:41:59]

I remember being shocked when I interviewed Bill Daigneau [oral history interview], because of course I suppose most people always assume that—

[00:42:05]

Raymond DuBois, MD, PhD

[00:42:05]

He was involved in all of that stuff.

[00:42:07]

T. A. Rosolowski, PhD

[00:42:07]

Absolutely. I'm sure the average person on the street thinks that the surgical suites would be the most important to build, and he quickly corrected me about that, no it's the research space.

[00:42:18]

Raymond DuBois, MD, PhD

[00:42:19]

Well, that requires a lot more technical input. One of the things that I guess we never agreed on, was we wanted to put a walkway all the way from the South Campus, to the North Campus,

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because it's so hot and it rains and everything, so people didn't have to drive back and forth and worry about parking and stuff like that. I think the finance team just felt like it wasn't worth the investment, and I guess you would have to get a right of way to go through some of that space and everything, but I still think it would have been wise to have everybody connected, because those connectors on the main campus are so important for people to get from building to building.

[00:43:02]

T. A. Rosolowski, PhD

[00:43:02]

They're incredibly important. I also, I can't remember who it was that I was interviewing, who said that they actually had to shut down some studies because, with the shuttle system, when they took a sample from a patient, it took so long to get it to the research lab that the—

[00:43:21]

Raymond DuBois, MD, PhD

[00:43:21]

It was damaged.

[00:43:22]

T. A. Rosolowski, PhD

[00:43:22]

It was damaged, yeah, and so it was interesting. [background noise]

[00:43:25]

Raymond DuBois, MD, PhD

[00:43:27]

Do you want to move?

[00:43:28]

T. A. Rosolowski, PhD

[00:43:28]

I think maybe we should. All right.

[00:43:30]

Raymond DuBois, MD, PhD

[00:43:30]

Let me talk to Anita. I didn't realize they were going to be doing that today.

[00:43:32]

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T. A. Rosolowski, PhD

[00:43:34]

I'm pausing the recorder at about seventeen minutes of eight.

[00:43:40]

[Pause in Recording]

T. A. Rosolowski, PhD

[00:43:41]

Okay, we're recording again and it's about thirteen minutes of eight, and we've changed conference rooms to try to escape the sound. All right, let's see. Oh, you were talking about the walkway from South Campus and all that.

[00:43:57]

Raymond DuBois, MD, PhD

[00:43:58]

Well, that was a dream. I think even when some of the former leaders of the institution were imagining that the Texas Medical Center would have these electric trains and all this stuff, moving people around, people movers, it just never happened. And now, it's gotten so large and so many administrative units as a part there, you know like the Texas Children's, and Baylor, and all these other people that it's hard to get everybody to agree to be able to move people around and they're competing for patients and other things now. But I thought just getting a connectivity between the South Campus, and even that large administrative building that was built in between would have been a nice move.

[00:44:47]

T. A. Rosolowski, PhD

[00:44:48]

(inaudible), yeah, absolutely, because the one thing that comes up in interviews, for people who have been at the institution for many, many years, is how much the expansion of the institution physically has changed the culture, and how much more difficult it is to run into people to resolve problems, for example. So many people said oh, you know, when we used to have a cafeteria, you'd run into so and so, and there was this issue and I happened to see the financial guy, and we just talked about it and solved it. Now, it's hard to run into people.

[00:45:22]

Raymond DuBois, MD, PhD

[00:45:22]

Right.

[00:45:22]

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T. A. Rosolowski, PhD

[00:45:22]

So, I think there is a struggle, how can space be managed so that people don't feel so disconnected.

[00:45:30]

Raymond DuBois, MD, PhD

[00:45:30]

Right, right. Yeah, it's a challenge and I think it became obvious when we expanded the South Campus, that there was a need to do something, and even—you know, not even an enclosed walkway, one that just had a sort of shade structure on it, to help facilitate just walking back and forth.

[00:45:50]

T. A. Rosolowski, PhD

[00:45:51]

I think people don't realize how the weather is really an issue.

[00:45:55]

Raymond DuBois, MD, PhD

[00:45:56]

It's either really hot, raining or other issues, and so if you had some protection there, it would have helped a lot I think.

[00:46:04]

T. A. Rosolowski, PhD

[00:46:03]

Yeah, absolutely. Also, Dr. Mendelsohn mentioned, in his interview, that he really had a dream for South Campus, that that whole area would become something of a technology incubator, kind of analog to Silicon Valley but in the medical field. What's your feeling about that and was that on deck?

[00:46:28]

Raymond DuBois, MD, PhD

[00:46:29]

He shared that vision with me and I was very much onboard with it. He actually had plans drawn up, to have some green space there and some workout space, and really make it a campus. He had been at University of California at San Diego earlier and he really liked the way the campus was laid out there, and he had always thought that that could happen at the South Campus. I think hopefully it will evolve at some point. There's still more land there, so incubator space could be built and you know, I think it could enhance the industry/academic

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partnerships.

[00:47:16]

T. A. Rosolowski, PhD

[00:47:17]

Were those something that were being explored at that time, the connections of industry and academic functions?

[00:47:23]

Raymond DuBois, MD, PhD

[00:47:24]

There were traditional connections with support for clinical trials and other things, and there were some novel drugs that were developed over the years, at MD Anderson and so those were always pitched to the industry, to see if they were interested in investing in that, but we never really, at least during my tenure, we never really talked specifically about a partnership where we have space together and stuff like that. There was a group from Pfizer that came down, and they have collaborated with a lot of academic institutions, but we just never came to a conclusion on that to where we did something.

[00:48:12]

T. A. Rosolowski, PhD

[00:48:12]

What were some of the impediments to that? I shouldn't say it that way, maybe the reasons why that didn't evolve.

[00:48:18]

Raymond DuBois, MD, PhD

[00:48:19]

You know, there are lots of issues with regard to the state of Texas, and how sharing intellectual property works, and stuff like that, that some of the industry partners didn't find that advantageous at that point. They could have been improved since then, I don't know.

[00:48:37]

T. A. Rosolowski, PhD

[00:48:38]

What were some of those restrictions? Nobody's ever mentioned that before.

[00:48:42]

Raymond DuBois, MD, PhD

[00:48:42]

Well, there's some in the Texas law, and how they manage the University of Texas System.

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Since it's a not for profit, sort of tax exempt organization, there's only a certain percentage of the revenue that can be coming from a for profit type of activity. So, our legal team was always reminding us of that and making sure that we limited that to a low percentage so that we didn't exceed whatever the law was there. There was concern about it, and I don't know the details of that, but I know the legal team was always concerned about that.

[00:49:25]

T. A. Rosolowski, PhD

[00:49:26]

Were there other concerns that people on the executive team had, creating those partnerships?

[00:49:32]

Raymond DuBois, MD, PhD

[00:49:33]

Just to make it all above board and make sure everybody knew what the potential conflicts were, so those were declared and things like that.

[00:49:43]

Chapter 11

Financial Processes, Challenges, and a Crisis; Issues Related to the Faculty

B: Building the Institution;

Codes

C: Leadership; D: On Leadership;

B: Building/Transforming the Institution;

B: Institutional Processes;

B: The Business of MD Anderson; C: The Institution and Finances;

C: Professional Practice; C: The Professional at Work;

B: MD Anderson Culture;

B: Working Environment;

A: Personal Background;

T. A. Rosolowski, PhD

[00:49:50]

Well, I'm not sure if we've fully talked about you learning the ropes here, have we? Were there other kind of big learning moments during those first—during that first period?

[00:50:02]

Raymond DuBois, MD, PhD

[00:50:02]

My budget at Vanderbilt was much lower than the budget that we had for all those operations at MD Anderson, and more unwieldy and more distributed out across several different organizational units. So I had to really step up my game on being able to manage those, and that's where Maureen [Cagley] came in handy, because she knew sort of how things were organized and managed at MD Anderson. She had worked there for several years, and she really helped make sure that all the division and department budgets were on track and stayed in the black. We had two or three meetings per year where we looked at the financial performance, to make sure everybody was not overspending their expense budget and all those kinds of things. Once a year, when we were deciding on the next year's budget, we had some very intense meetings with all the division heads and went over their budgets in extreme detail, in terms of all the line items: who was going to get a raise and what the plan was for capital equipment. All of those things got discussed and that took us lots of time and effort, to go through those series of meetings and make sure that we were all on the same page.

[00:51:34]

T. A. Rosolowski, PhD

[00:51:36]

In addition to the stated goal of getting the budget on track, did those meetings have another impact, working so closely with the division heads?

[00:51:48]

Raymond DuBois, MD, PhD

[00:51:50]

I think it did help align our goals and objectives because you know, basically you need money, which is the fuel to make things happen. So, which type of faculty were being recruited and who they were planning on bringing onboard for the future and things like that, I think those meetings did help align that and also made sure that they understood that we had to be fiscally responsible. We didn't want to overspend our budget, we wanted to make sure that we stayed within the boundaries that were allowed, and that we didn't spend things on frivolous activities or anything like that. I think it did help us, me a lot, to make sure that we were all aligned in the financial predictions and the financial performance.

[00:52:44]

T. A. Rosolowski, PhD

[00:52:44]

I remember when I talked to Lean Leach [oral history interview], he was so emphatic about the fact that the institution was moving into, along with every academic medical center, really a new financial era, where you just had to have a level of concern and suspicion that the situation now was going to last a month, because things were changing so rapidly. So I think it sounds like division heads and department chairs were kind of watching this from a different level and not seeing that probably as clearly, because they're not financial people and they're attending to their own backyard. So it's like a culture change, getting people to understand yeah, we've kind of come out of the era where resources are very, very liberal, and need to pay much more attention.

[00:53:35]

Raymond DuBois, MD, PhD

[00:53:36]

I think Leon brought a heightened concern about those issues to the institution when he came onboard. I think before Leon took that job, there were some strange accounting practices and other things, and I'm sure he relayed to you about that. But right after I came, it was 2007, and then we had the 2008, 2009 economic downturn, which really, really impacted us. Nobody was expecting that and I can remember some really, really tough meetings where we had to cut our costs dramatically. We were getting a lot less revenue from some of our endowments and other things, and it was just a tough financial time for the whole country, looking back on it. It was the worst downturn since the Great Depression, so we had to lay off over 500 employees. We had to cut costs on travel and other things. We had to cut costs on food and drink that was used for all

the meetings, and the team really came together. We identified areas where we could make the most impact and we acted on that pretty quickly. In fact, that year, we had a huge margin, because we had taken all those preventive measures early enough so that the budget didn't get out of whack before it could be corrected.

[00:55:20]

T. A. Rosolowski, PhD

[00:55:21]

How did you communicate this to the institution at large? It's always a tough one.

[00:55:27]

Raymond DuBois, MD, PhD

[00:55:28]

It's a tough message, but we were open and transparent and basically communicated via every possibly way. I certainly communicated to all of my reports and all the division chiefs, who cascaded that message down. We had some town halls where we talked about this economic pressure that we were under. It's still tough to lay off people, but the way we went about it was to really look at people throughout the institution: who was essential, who really was playing very important roles, and patient care was the number one priority. We did have some staff there that were doing things that probably, in the real span of the whole goal, we could do without, and then we also looked at people whose performance had really dipped below what was acceptable, and there some, at that time some low performing individuals, there were employees there that were laid off. I think in the end, it didn't really have a huge negative impact on our performance.

[00:56:46]

T. A. Rosolowski, PhD

[00:56:47]

What were some other kind of key moments for you in those first years, I mean maybe highs and lows. Lows are always learning moments.

[00:56:59]

Raymond DuBois, MD, PhD

[00:57:00]

There were long hours there and for me, my son was finishing up his high school year in Nashville, because he was on the lacrosse team and he was an All State lacrosse player, and I think if I had moved him to Houston, he would have to restart on another team, and he would have lost a lot of momentum. So my wife and I decided they should stay a year, to let him finish out his twelfth year, the twelfth grade, and I think that worked out well. He definitely, you know they went to the—they didn't win the state title but they were in the playoffs and he really enjoyed doing that and that really meant a lot to him. So, there was a lot of commuting back and forth and that was difficult, because we were in two different cities. Ultimately, he went to

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Texas A&M and ended up being close to us during his college years, and then took a job in Houston after that, so that was nice. So that was a stress, I think, a family stress, and it was a much better situation after we were all in the same place.

[00:58:22]

The economic downturn, I think was huge, but having the CPRIT funds and all of that was a very positive thing. It enabled us to recruit people from all over the country, because they were in states that didn't offer that kind of support. What it did was it allowed you to have another sort of grant source that was only for citizens of the state of Texas, so it was a little bit—I wouldn't say it was not competitive, but it was less competitive than the NIH, because you're competing with people from all fifty states there. So that was a real positive and I got involved on some CPRIT committees and got to know Al Gilman, and I think that was a very positive interaction. He was quite a character.

[00:59:13]

T. A. Rosolowski, PhD

[00:59:13]

And who was Al Gilman?

[00:59:14]

Raymond DuBois, MD, PhD

[00:59:15]

Al became the head of the CPRIT—he was the chief scientific officer, and he was a Nobel Laureate that was at UT Southwestern. He had been their provost and he sort of was leading their research operations there, and he was quite a character, quite a colorful character, I really enjoyed getting a chance to know him. He was in constant communication with us because he wanted to make sure that we were supporting the most competitive research and that we put in place, a screening process to make sure that the best applications moved forward, so that it was an effort to get as much of the CPRIT funding as we could, to MD Anderson.

[01:00:04]

T. A. Rosolowski, PhD

[01:00:07]

Can you tell me about the connection between your activities and academic affairs and the growth of the research institutes that John Mendelsohn had put as part of this—or in the executive team and important part of the strategic plan.

[01:00:22]

Raymond DuBois, MD, PhD

[01:00:23]

During my time there, I was intimately involved in that, so with each center director and institute

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chair, we would discuss key recruits and we would identify resources to support that. We were in pretty much lockstep on doing that and I think it was a positive, good relationship and everybody wanted to get the best potential recruits that we could there.

[01:00:53]

T. A. Rosolowski, PhD

[01:00:54]

When did you start seeing immediate results from these efforts?

[01:01:02]

Raymond DuBois, MD, PhD

[01:01:02]

It took about two and a half years to see the increase in the extramural funding bump up, and every year that I was there, it increased over the previous year, and I have those numbers somewhere, I didn't bring them today.

[01:01:18]

T. A. Rosolowski, PhD

[01:01:18]

That's fine.

[01:01:19]

Raymond DuBois, MD, PhD

[01:01:19]

It led to multi millions of dollars for research funding and support that we had when I started, and so I think it did have an impact. The other thing I did, and I don't know where I got this idea, but I started this Wall of Science and Medicine. What we would do is we would take a publication from one of the faculty that was published and got a lot of attention in the press, and place it in the provost's suite and let it hang there for a few months, and then when somebody exceeded that, we put theirs on the wall, and then we would give that to the individual investigator and they were able to put it in their office and sort of brag about what they had done. It became a competitive thing, where people tried to outdo one another, to have a more impactful paper hanging in the provost office. And then whenever I had visitors or donors or board members come in, I would always make sure that they saw examples of some of the work that was being done, and I think everybody—that was a very positive thing, everybody got a lot out of that, and I've continued that here. We have a little smaller Wall of Science out in the hallway, where we emulate the high impact publications. When I first started here, only five or six people put in submissions, and now there's like thirty or forty, so people really enjoy getting some recognition for that.

[01:02:58]

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T. A. Rosolowski, PhD

[01:02:58]

It may even take time for people to get their heads around what it is and what it means in terms of the institution.

[01:03:03]

Raymond DuBois, MD, PhD

[01:03:04]

There were some major *New England Journal of Medicine* papers on new treatments for leukemia and other things, and I think people in the whole mix don't keep up with all these things that are being achieved, and it's good to have that all in one place, where you can just see the enormity of what's going on there. Certainly the donors were impressed with that, when they got to see the—we had the picture of the individual and the abstract, and some of the figures in the paper, and what the layman's conclusion was from what they had done, and it's very impressive. It's such a large institution, you know there's so many things going on, but it collectively has a huge impact.

[01:03:54]

T. A. Rosolowski, PhD

[01:03:55]

It does, it does. What about working with Promotion and Tenure, the Faculty Senate?

[01:04:01]

Raymond DuBois, MD, PhD

[01:04:03]

I had regular meetings with the Faculty Senate and like I said earlier, we worked on this exigency plan for the institution and that was a big win-win, both for the institution and for the faculty, and I think we all agreed that accomplishing that was important. I met with Faculty Senate every month and they always had a list of concerns and issues, and I think it's important to put all of that out on the table and discuss it. Some of those issues, we could resolve and some we couldn't, and we—and when I couldn't address some of them, I'd just let them know that there's not really anything we can do about this particular issue and that's sort of the answer. You know it's good to have that dialogue and feedback, so you're not constantly wondering what the thinking is about this or that. There were some issues that we could address and we put things in place to help solve those problems.

[01:05:02]

T. A. Rosolowski, PhD

[01:05:02]

What were some of the themes coming up, both the things that you couldn't address and the

things that you could?

[01:05:07]

Raymond DuBois, MD, PhD

[01:05:08]

Well, some faculty complained about their salaries through the Faculty Senate, or how much support they got for their research operations, or sometimes it was a conflict that needed to be resolved and got identified through that pathway and we were able to have the—usually there's two individuals involved in the conflict. I would call a meeting and have both sit down and we would really try to hammer that out and come up with some resolution. You just don't want those burning all the time and a lot of times it had to deal with who got credit as an author on a paper or who was getting money from a grant when the research was shared between two different groups, you know little petty things like that, but they caused a lot of concern and consternation.

[01:06:04]

T. A. Rosolowski, PhD

[01:06:05]

I'm just reminded of something that was coming along with translational research, which is the team science context, and obviously there's a real—as I've come to understand, there's a real gap between what's needed to get people to practice team science, and then how it's recognized and rewarded in traditional academic structures. When you mentioned the conflicts about research funding and credit, it kind of reminded me of that. Were you starting to see some of that in 2007, 2008?

[01:06:41]

Raymond DuBois, MD, PhD

[01:06:42]

Yeah, it was emerging, and because MD Anderson is such a large place and we have multiple expertises, there were certain research projects that were better dealt with to have a team of individuals working on it, especially for example, the Institute of Personalized Medicine. There were so many different parts of the puzzle that needed to be done that you know, you did really need a team assembled to do it. I did have conversations with the Promotion and Tenure Committee, to talk about how we could best reward people for team science, and we started looking at where their authorship was placed on a paper and really trying to reward individuals when they contributed to that team, and even to the point where when people would talk about certain research accomplishments in the application for a promotion, they would talk about—we asked them to specifically talk about their role, especially when they were part of a paper that had fifty authors: what was their specific role in making that project work and how did they contribute to the overall success of the team. That really helped, because then that was a tangible accomplishment that they could get credit for, instead of just a blob of authors on a paper. I

think getting more detail about what their role was helped out, and so we did start giving more credit for that. And then also, for people who did things that ended up developing new intellectual property, patents and royalties and things like that, we wanted to reward that effort, because a drug or a device doesn't become useful unless it has some value to the industry, and that's the way to do it, is to file a patent or do something that indicates it has some value.

[01:08:40]

T. A. Rosolowski, PhD

[01:08:41]

Were there some kind of tricky conversations about that, that came up? I don't mean conflict, but just thinking through the issues, because a lot of these presented new scenarios.

[01:08:52]

Raymond DuBois, MD, PhD

[01:08:54]

Well, no, I think all academic centers are going through this transition and since there are—harder to develop all the support needed from the clinical enterprise, the academic/industry partnerships are becoming more important and more well accepted. At that time, it was still something that you had to make sure that all the Ts were crossed and Is were dotted, but clearly, as long as the conflicts were declared and it was clear that the drug was of value, the only way to get it to the patient was through this industry partnership, and everybody realized that.

[01:09:35]

T. A. Rosolowski, PhD

[01:09:39]

Were there issues that were coming up around promotion and tenure, and the process?

[01:09:44]

Raymond DuBois, MD, PhD

[01:09:45]

You know, I thought that we had a fairly good process in place. People took their role on those committees very seriously. I remember right after coming onboard, I talked to—I would have a meeting just with the committee, and they wanted to know what my expectations were and I wanted to answer their questions, so that we were all on the same page. I did say that we would like to increase the bar required for people to get promoted, and make sure that they deserve that promotion, but the criteria I think we all agreed on, in terms of achievements and extramural grants. We also wanted to reward outstanding teachers and contributors in that way. There are basically three criteria for promotion in any academic center. One is research, education, and then clinical service. Dr. Mendelsohn and I were in total agreement that you really needed to be outstanding in one of those, and then have some aspect of another one, to support the promotion. So if you were a pure clinician, as long as you were doing outstanding work in that area and then

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you did some education or other scholarly activity, that was adequate for a promotion. If you had no—if you don't excel in any of those, then that really raises a red flag about whether or not you're on the right career path.

[01:11:27]

Chapter 12

Executive Teamwork and a Long-Range Vision for the Institution

B: Building the Institution;

Codes

C: Leadership; D: On Leadership;

C: Collaborations;

B: MD Anderson Culture;

B: Institutional Mission and Values;

B: The MD Anderson Brand, Reputation;

B: The Business of MD Anderson; C: The Institution and Finances;

A: Professional Values, Ethics, Purpose;

D: Ethics;

T. A. Rosolowski, PhD

[01:11:29]

During this time, was there a moment when you said to yourself, I've learned something being here, you know going through this process of taking on this new role? How were you evolving as a leader during this time?

[01:11:48]

Raymond DuBois, MD, PhD

[01:11:50]

That's a good question. I don't think I had a specific ah-ha moment that I suddenly realized. It sort of evolved over time. But it did become apparent to me that this executive leadership team was really important and really hammering out and discussing the issues and what the plans were, before we made a decision, and then seeing what the ultimate final decision was, made that decision a lot more effective and likely to succeed. There was a team dynamic there and the positive thing about it was that we all generally agreed on where we wanted the institution to go. We did differ in some of the ways to get there and what things needed to be done, but whenever we got together, and we did get together on a regular basis and we all got to say what we wanted to say, and then ultimately decide on which direction we were going to take. I felt like that decision included all of our collective input and was probably in the best interests of the institution. I can remember when we were in that 2008, 2009 economic downturn, you know that had not happened in quite a long time, so Dr. Mendelsohn was really concerned about laying off employees. He just didn't want to overreact to whatever those issues were, but in retrospect, we definitely came to the right decision, because if we had not decreased our personnel costs, we would have had a very difficult time managing our finances. At first, I was wondering, is that the right thing to do, and nobody really knows the future so you just have to react and do the best you can. But we had several discussions with Dr. Mendelsohn and ultimately, I think he saw that

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the potential downside was big and we didn't want to get into a financial difficulty there, and it turned out to be the right decision.

[01:14:19]

T. A. Rosolowski, PhD

[01:14:20]

So Leon Leach and Tom Burke and you were reluctantly in favor of it?

[01:14:25]

Raymond DuBois, MD, PhD

[01:14:27]

Yeah, I was in favor of it but you know, we were reacting to something that happened fairly suddenly.

[01:14:33]

T. A. Rosolowski, PhD

[01:14:33]

Right.

[01:14:33]

Raymond DuBois, MD, PhD

[01:14:34]

I don't know if you remember, but there was just a matter of days where everything went down the tubes on that economic downturn, I mean the government was trying to shore up all these financial agencies and stuff like that, financial institutions. We reacted fairly quickly, which for a state institution, sometimes decisions aren't made that quickly.

[01:15:00]

T. A. Rosolowski, PhD

[01:15:00]

So this came down to the team having long and immediate meetings.

[01:15:06]

Raymond DuBois, MD, PhD

[01:15:06]

Yeah we, as soon as this all came out in the news, we made a list of things where we could reduce our expenses, and some of those are obvious, like travel is the big expense but it's easy to regulate, and we just cut it. We made essential and nonessential travel and you know, any kind of expenses that required food or things like that, at meetings, we cut that down quite a bit. We also instituted this situation where we expected our clinicians to see one extra patient per session than what they usually did, just so that we can make sure our revenue stream stayed up, and

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believe it or not, that's such a big number of clinicians that it makes a huge difference in the financial performance, and they all did that. I think people were really concerned about the adverse financial impact, and so they worked harder, and doing it collectively as a whole group of clinicians, really it made an impact on our revenue. And then decreasing expenses from those personnel costs really helped a lot and overall, we ended up, I remember distinctly that year, we had a significant margin. I can't remember how much it was but it was over \$100 million, so all of those decisions were right on target.

[01:16:49]

T. A. Rosolowski, PhD

[01:16:50]

Now you provided that as an example of the value of this team dynamic, and you had talked about that as something that you were learning about yourself. I mean was that kind of learning you're a team person? I just want to make sure I understand what was your lesson from all of that.

[01:17:13]

Raymond DuBois, MD, PhD

[01:17:14]

Each of us represent a very important part of the institution and it's our duty to stand up for that part of the institution. So, I was over all the academic components and clearly, I felt part of my responsibility was to make sure that we continued to do all the things that fulfill our mission, but as an institution, there were these overarching concerns about you know, did we want to have a financial collapse or whatever, and so we had to make concessions in order to make sure that it was for the good of the institution, and that team was able to do that.

[01:17:57]

T. A. Rosolowski, PhD

[01:17:57]

That's interesting, yeah, yeah, that's a very important value, and maybe it takes a crisis to show that sometimes.

[01:18:05]

Raymond DuBois, MD, PhD

[01:18:05]

Yeah, and I think our layoffs weren't as bad as some of the finance team thought they were going to be, because there was some give and take there in terms of how deep those layoffs were, and so I think having a team that has different inputs but willing to concede on certain things for the good of the institution is really important. So that was a life lesson, I think.

[01:18:35]

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T. A. Rosolowski, PhD

[01:18:36]

Now you mentioned, you know one of the strengths of this team is that there was a shared long-term vision of what the institution would be and what it could achieve. What was that?

[01:18:47]

Raymond DuBois, MD, PhD

[01:18:50]

Well, I think everybody agreed with the number one priority of patients come first, so that was the top priority for all of us, and clearly research is a part of that, because it finds new treatments and new ways to diagnose cancer and make the outcome better for the patient, but getting the patient an appointment and making sure they got a diagnostic workup and a treatment plan formulated, and post-treatment care obviously was key. So we didn't want to lose any of our staff or physicians that were involved in those frontline duties and we wanted to make sure those stayed as efficient as possible. We all bought into that, I think that was common, and even people in accounting and the hardcore finances really bought into the patients coming first.

[01:19:52]

T. A. Rosolowski, PhD

[01:19:54]

And you know the shared vision, I mean aside from the economic downturn, what was that kind of shared dream of what you were all working for?

[01:20:05]

Raymond DuBois, MD, PhD

[01:20:05]

Well, we certainly wanted to maintain the highest standard of care that we could possibly maintain, but also be involved in determining what the next most effective treatments were. That was very important to everybody, for us to have a role in that whole research process and coming up with new ways, more effective ways to treat cancer patients.

[01:20:35]

T. A. Rosolowski, PhD

[01:20:36]

Was there conversation about rankings and practical things? I know it sounds gritty and dreadful, but you know it's a factor.

[01:20:44]

Raymond DuBois, MD, PhD

[01:20:44]

Rankings were very important, especially to our board and our donors. I don't know how it's

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done today, but we actually had an individual assigned to look at all the parameters that went into the ranking process and examined those carefully, and looked at what we were doing as an institution and make sure that those things aligned and that the information we were providing to the ranking bodies was correct and really reflected what was going on there. Then, there are a few things that we tried to shore up to improve our reputational score. We offered a lot of CME courses to people all over the country, in terms of what the latest cancer cure was, and that really helped them see what we were doing, because those individuals in the specialty are ranking all the institutions, and so the more they know about the great things that are going on, the more likely it is they're going to give you a higher ranking, and so we were constantly aware of that and engaged in that. It's a very competitive thing, because Memorial Sloan-Kettering also tries to be ranked number one, and so we didn't want to lose the number one ranking and at least during my time there, we were number one in *U.S. News and World Report* every year. It was something that we were very conscious about and we wanted to maintain that and we didn't want to lose any ground there. So every quarter, we would get a report from—Tom Feeley was the person that was in charge of that and he took that very seriously. He was head of the Anesthesia Division and he really, I think taught us what they were looking at, what we needed to do to make sure that everything was hunky-dory and how we could ensure that we continued in those high rankings.

[01:22:47]

T. A. Rosolowski, PhD

[01:22:48]

Now when you came on in 2007—I'm going to sort of do a compare and contrast, because I'm thinking about the issue of ranking and reputation with recruiting. Did you see a change or were you aware of some problems with recruiting because of coming to Texas, coming to MD Anderson, all of those issues?

[01:23:07]

Raymond DuBois, MD, PhD

[01:23:08]

I think MD Anderson has always had a very high reputation and it's always been prestigious. I think there were some concerns about the overall quality of the science from top to bottom at the institution, so we were very aware of those potential concerns. We wanted to make sure the standards were as high as possible and that we got the best scientists onboard as we could, and so I did examine carefully, every recruit that we made, just to make sure they fulfilled some minimal criteria for the standard, and I think that did help, over my tenure, to increase the quality of some of the faculty that we recruited, but there was a lot of faculty there and they've been there for a long time. People love staying at the institution, so it's not easy to turn that around overnight, because it's a sizeable group and they're very loyal to the institution so they want to stay there. Some people were nervous about moving to Houston, especially from places like Boston and San Francisco. There are some weather concerns and it's a very big urban city, not a

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lot of green space. So there were some people that were harder to recruit than others, and we have to keep our eye on that. I think having the CPRIT recruitment packages that came along with it really helped to overcome that somewhat.

[01:24:47]

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Chapter 13

Looking at the Presidency of MD Anderson

A: Overview;

Codes

C: Leadership; D: On Leadership;

A: Personal Background;

A: Overview;

B: Institutional Processes;

B: MD Anderson and Government;

A: Professional Path;

C: Evolution of Career;

A: Personal Background;

A: Finance, Entrepreneur, Biotechnology;

A: Career and Accomplishments;

A: Overview;

A: Definitions, Explanations, Translations;

C: Dedication to MD Anderson, to Patients, to Faculty/Staff;

T. A. Rosolowski, PhD

[01:24:51]

Do you want to talk about kind of moving into the last couple of years of your time there?

[01:24:56]

Raymond DuBois, MD, PhD

[01:24:55]

Sure.

[01:24:56]

T. A. Rosolowski, PhD

[01:24:57]

And the plans for John Mendelsohn [oral history interview] to step down.

[01:25:00]

Raymond DuBois, MD, PhD

[01:25:00]

Yeah. Even when I was being recruited there, John was honest with me and said he's not going to be there forever, and so I knew that there would come a time when he stepped down from the role of president. There was no definite date or time when that was going to happen, but during

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my final two years there, it became obvious that he had decided that he was wanting to do that. He'd been in the role for a long time for a president of such a large, complex institution, so it was understandable. One of the things that we discussed when I came onboard was the possibility that I could eventually take on that role, so that wasn't a secret to anybody. John allowed me to represent the institution at the Board of Regents meetings, solo, on a couple of those, to see how that went, and get to know some of the UT System leadership better and also do a lot of sort of lobbying in Austin, with the state legislators and stuff like that. I was even involved in some major fundraising efforts, and so I really thank him for giving me that opportunity. So when he stepped down and they started the search for the successor, I did obviously apply for the position, and went through the whole interview process that all of the applicants went through, and at each level was selected to go to the next level. The University of Texas has a very unusual system for doing this kind of thing.

[01:26:45]

T. A. Rosolowski, PhD

[01:26:45]

I was going to ask you to talk about what that is.

[01:26:48]

Raymond DuBois, MD, PhD

[01:26:50]

They try to keep everything in secret in the initial phases, until they get to the top two or three candidates, and then the Search Committee refers these top two or three candidates over to the Board of Regents and then they sort of take over in the final stages of the process, interviewing and all that. Believe it or not, they pre-negotiate with all three, what your offer would be, even before they decide who gets the offer. For example, I had several discussions with Ken Shine about what I needed for my laboratory support, what I would need for my salary, and all of those negotiations are done without the knowledge of actually who's going to get the job.

[01:27:42]

T. A. Rosolowski, PhD

[01:27:42]

Do you have any insight into why that happens?

[01:27:44]

Raymond DuBois, MD, PhD

[01:27:45]

I don't know. I think it's bizarre, because it does get your hopes up, that you're actually going to get the job. That's the only time for any job, that I've ever gone through that process. The other thing that they demanded and I thought it was really bizarre, was that my wife come with me and also be interviewed by the Board of Regents, because I guess they had had problems with wives

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or something in the past. But you know that's a difficult thing to put your wife through, because they always try to be supportive and everything, but I distinctly remember sitting there with my wife and they were asking her questions about her qualifications as a hostess and if we had certain legislators over for a dinner, how she would deal with that. It was a little bit offensive, because she was a journalist, a writer, and had her own career and had just gone through these photography courses at Rice and had started that. I don't know, that was not a totally positive experience.

[01:29:03]

T. A. Rosolowski, PhD

[01:29:04]

The State Department used to do that in the old days, for ambassadors, they would interview the wives.

[01:29:08]

Raymond DuBois, MD, PhD

[01:29:09]

Interviewed the wives. Yeah.

[01:29:10]

T. A. Rosolowski, PhD

[01:29:10]

But yeah, it's really a blast from the past, a different era.

[01:29:13]

Raymond DuBois, MD, PhD

[01:29:14]

So I had a tremendous amount of support from the faculty and everybody I interacted with at MD Anderson, and I think that was all fairly positive. The Board of Regents is their own body and they make their decisions based on what they think is best for the UT System. I think what happened in retrospect was I was really focused on some of the things I was involved in with the administrative management of the institution and what we were going to do to improve certain things and what the future held. When you get somebody from the outside, they can weave a completely different picture and talk about massive changes that they want to do to really transform the institution, and I guess I was tied into reality more, based on my experience in making some incremental changes to make improvements, so in the end, I think I probably wasn't as competitive than some of the outside individuals, just because of my knowledge of what was possible and what we had done and what I expected to accomplish over the next five years. Whereas, you know somebody from the outside could say well, we're going to cure five cancers in five years and really have a huge impact. So I think it's difficult. Dr. Mendelsohn had sort of worked out a succession plan for me, because we had gotten to know each other

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really well. We had gotten to a certain point, and then to get to the next set of expectations over a five-year period, I had really focused on talking about those areas that I wanted to focus on, but they probably weren't as glitzy as some of the outside candidates portrayed.

[01:31:16]

T. A. Rosolowski, PhD

[01:31:16]

What were the areas you wanted to focus on?

[01:31:19]

Raymond DuBois, MD, PhD

[01:31:19]

I had already decided that we really needed to do more in tumor immunology and immunotherapy for cancer. I talked about our recruitment that was already underway for Jim Allison. He hadn't really accepted the job yet, because he wanted to try to see who the next president was going to be, and that was a reasonable response, and how we were going to shore that up, and then continue to improve the impact and quality of the science that was underway, which doesn't really turn a lot of heads when you talk about that. I thought there were certain things we could do to improve the fundraising effort. I had just been involved in this \$150 million gift from the UAE and what we were going to do with that building and how we were really going to transform personalized medicine. I was talking within the realm of what MD Anderson had been doing and within the plans that had already been set in place from Dr. Mendelsohn. I think others could just completely talk about whatever they wanted to do from scratch, because they really weren't familiar with what the situation was. It is—an internal candidate, I think is in ways less competitive than an external candidate, and for whatever reason, the board decided to go with Dr. Dr. DePinho [oral history interview]. I think he's an outstanding scientist and very well recognized for his accomplishments, and so that's just the way they went.

[01:33:03]

T. A. Rosolowski, PhD

[01:33:04]

What do you think they had in their minds in selecting him?

[01:33:06]

Raymond DuBois, MD, PhD

[01:33:07]

I think because of his achievements and what he had done in the Harvard System, Dana Farber, I think they thought he could bring another focus to the institution in terms of drug development and really raise the notice of the institution in a whole different set of donors outside the Houston area that could bring resources onboard. He had a lot of ties to industry, but Dr. Mendelsohn did

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as well, and I had some that you know --when I was at Vanderbilt, I developed my own biotech company and eventually sold that, and it did reasonably well. But it's not something I bragged about or talked about in this process. In retrospect, it might have been something to let the regents know about.

[01:34:02]

T. A. Rosolowski, PhD

[01:34:02]

You didn't even brag about it to me. [laughter]

[01:34:04]

Raymond DuBois, MD, PhD

[01:34:05]

Well, I didn't enjoy it. You know, I really liked the academic research job that I was doing and for that company, we had a lot of business meetings, we had to talk to investors and it was based on a patent that a friend of mine had gotten at Vanderbilt, and the technology, I think was very good and worthy of this kind of situation.

[01:34:31]

T. A. Rosolowski, PhD

[01:34:31]

What was the device or process?

[01:34:32]

Raymond DuBois, MD, PhD

[01:34:33]

It was a process to scan the whole genome using a technology called insertional mutagenesis, so that we could go, in a very systematic way, and delete almost every gene within the genome, and then put them back into a cell, and then see what process went awry. We tagged those insertional mutants with a sequence that we could always go back and determine what gene had been affected. It actually got used to detect new targets for treatment of HIV ultimately, and HIV infections. So there was an infectious disease part and a cancer part, and we also identified some metabolic pathways that affect cancers, that eventually became very well studied and you know, it was positive.

[01:35:27]

T. A. Rosolowski, PhD

[01:35:26]

Interesting. Who was your partner?

[01:35:28]

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Raymond DuBois, MD, PhD

[01:35:28]

Don Rubin. Don Rubin was an infectious disease person that came to Vanderbilt from the University of Pennsylvania.

[01:35:35]

T. A. Rosolowski, PhD

[01:35:36]

And what was the name of your company?

[01:35:37]

Raymond DuBois, MD, PhD

[01:35:37]

Avatar.

[01:35:38]

T. A. Rosolowski, PhD

[01:35:38]

Oh, cool. Why did you choose that name?

[01:35:43]

Raymond DuBois, MD, PhD

[01:35:43]

Well, because you know, we thought we would be able to predict the important pathways that kind of cause diseases.

[01:35:49]

T. A. Rosolowski, PhD

[01:35:50]

Very cool. Who did you sell the company to?

[01:35:51]

Raymond DuBois, MD, PhD

[01:35:52]

You know, I had left the institution and I can't remember. It was a company in Atlanta that took it and I haven't followed up on it. This was a long time ago. But you know, I was involved in an intellectual property project that was valuable and got translated into the biotech industry, so I knew all about that and what it took to do it.

[01:36:18]

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T. A. Rosolowski, PhD

[01:36:19]

Now when you—that's rotten news to get, right, that you haven't been selected.

[01:36:26]

Raymond DuBois, MD, PhD

[01:36:26]

The way they do it is just awful.

[01:36:28]

T. A. Rosolowski, PhD

[01:36:29]

Is it? Oh.

[01:36:29]

Raymond DuBois, MD, PhD

[01:36:30]

It's like when they choose the Pope and the white smoke or the black smoke goes up. What happens is they interview everybody in the morning. I think they had three candidates for the final and you're not supposed to know who the other candidates are, or meet them or talk to them. So they have everybody at different hotels and they send a car, they take you to the UT System office and you go up and interview with the regents, your wife interviews, and then you leave and then after those three interviews, they allegedly vote and decide who gets the job. It's usually not always unanimous until they decide who the majority of votes go for, and then they revote and make it unanimous, so that it has to be a unanimous decision for the support of the new president, which I think is a good idea. Then, Dr. Shine is supposed to call you and let you know if you got the job or didn't get the job, but what happens is I think they have a second sort of period of negotiation with the finalist, to make sure that everybody's on the same page, so that leads into the afternoon. My wife and I, we knew there were only three interviews, we knew each one was an hour, we knew they hadn't finished by eleven o'clock, and so we were getting towards 2:00 or 3:00 p.m. in the afternoon, hadn't gotten a phone call, so it became obvious that we weren't going to get the job, because they were in the process of negotiating with the person that they chose. So you have this long drive back to Houston, which is not a fun thing. Actually, the people in Houston, they really thought that I was going to get the job for some reason. I mean you never know until you go through the process. They had prepared champagne and all this other stuff, and it's just one of those things you have to face when you go for that kind of thing.

[01:38:31]

T. A. Rosolowski, PhD

[01:38:32]

Why did you want the job?

[01:38:33]

Raymond DuBois, MD, PhD

[01:38:33]

Well I thought, based on my experience as provost and what we had gone through with the economic downturn, and the recruiting, that I really could have a positive impact. Being from Texas and being dedicated to the institution from a very young age, with the experience my aunt had had there, I really was totally loyal and really thought I could take us to the next phase, you know bringing in people like Jim Allison and others, we could quell some of the concerns that people had about the quality of the science. I did get along well with the clinicians and I felt like we needed to make sure that they got properly rewarded for all this hard work that they were doing. I think they felt like I understood where they were coming from and we had a really good relationship with that group. So there were a lot of personal relationships with individuals, that I've maintained until today, even after I left. And then, you know cancer prevention is such an important part of the institution, I was definitely in lockstep with those goals and how we could enhance that for the future. I just felt that there would be stability, because I had been involved in all the financial and fundraising things. So there would be long-term stability, there were no real surprises in terms of what to expect with the way the institution was managed. I guess I was a little bit more fiscally conservative than some of the people that were considered, but I thought we had really banked a lot of the reserves from the margin, so I felt like we were in good financial shape and could take some risk going forward if we needed to.

[01:40:42]

T. A. Rosolowski, PhD

[01:40:43]

What was going through your mind? And I'm sorry to ask such a personal question, but it's kind of part of the leadership experience. You've gotten your hopes up, you have excellent reasons for wanting this job, and now you have to come back to this beloved institution knowing you haven't gotten it. That takes a major mindset readjustment, so what was that like?

[01:41:05]

Raymond DuBois, MD, PhD

[01:41:05]

Well, that was a blow, because you put everything on the table. I worked [many] twelve-hour days there, to do everything I could to support the institution, and then you know, you feel a little bit slighted because obviously, the institution doesn't support you, but that's a very sort of primal way to think of it. I think the institution really was thankful for all the work that I did, and a lot of people, after they found out that I didn't get it, contacted me and really were helping me get through that and said that it wasn't anything personal, it was the Board of Regents. That's the way they operate. And having gone through it, that they're still thankful for everything that I did

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there and they hope that I stay. At that point I thought, well maybe I should just leave and allow the new person to come in and do their thing. Several people called me and were begging me to stay on and help with the transition, because the new president didn't really know the institution that well and he didn't have a lot of administrative experience in the past. I thought that was important, so I stayed on for at least another year, to try to make sure that it was as stable as possible for the transition.

[01:42:43]

T. A. Rosolowski, PhD

[01:42:43]

Now, I'm looking at the time and we're at quarter of nine, and I'm sure you have something to do at nine.

[01:42:48]

Raymond DuBois, MD, PhD

[01:42:49]

That's true.

[01:42:50]

T. A. Rosolowski, PhD

[01:42:52]

So I'm wondering if this is a good place to stop today.

[01:42:52]

Raymond DuBois, MD, PhD

[01:42:52]

Yeah, I think it is.

[01:42:53]

T. A. Rosolowski, PhD

[01:42:54]

Okay, all right, and that way, you can have your transition time and all of that good stuff.

[01:42:57]

Raymond DuBois, MD, PhD

[01:42:57]

Good. Great.

[01:42:57]

T. A. Rosolowski, PhD

[01:42:58]

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Well I wanted to thank you for your time this morning.

[01:43:00]

Raymond DuBois, MD, PhD

[01:43:00]

Yeah, you're welcome. So, you're going to do it again tomorrow?

[01:43:03]

T. A. Rosolowski, PhD

[01:43:03]

Yes. I'll show up at seven again, does that work for you?

[01:43:06]

Raymond DuBois, MD, PhD

[01:43:06]

Yeah, sounds good.

[01:43:07]

T. A. Rosolowski, PhD

[01:43:07]

Okay, good, good. All right, well just for the record, I'm turning off the recorder at eight forty-six.

[01:43:13]

Raymond Nelson DuBois, Jr., MD, PhD

Interview Session 03

Chapter 00C

Interview Identifier

T. A. Rosolowski, PhD

[00:00:01]

I just want to say for the record that today is November 16, 2018, and I'm Tacey Ann Rosolowski. The time is about five minutes after seven, and I'm in the dean's office of the Medical College, at the Medical University of South Carolina. I finally got it right. [laughter] Get all the elements correct. This is my third session with Dr. Ray DuBois, so thank you again, for all the time you've given to this.

[00:00:25]

Raymond DuBois, MD, PhD

[00:00:27]

Oh you're welcome, you're welcome.

[00:00:30]

T. A. Rosolowski, PhD

[00:00:29]

And kudos to Anita, for valiantly protecting all this time, which I know is a challenge. I'm actually shocked it worked out as well as it did.

[00:00:36]

Raymond DuBois, MD, PhD

[00:00:36]

No, it's going to happen, yeah.

[00:00:37]

Chapter 14

An Institution Transitions Under a New President

B: Building the Institution;

Codes

C: Leadership; D: On Leadership;

B: MD Anderson History; B: MD Anderson Snapshot;

B: Critical Perspectives on MD Anderson;

B: Building/Transforming the Institution;

B: Growth and/or Change;

B: Obstacles, Challenges;

B: Institutional Politics;

B: Research;

C: Portraits;

T. A. Rosolowski, PhD

[00:00:38]

You had said that you wanted to make some comments about your experience, how it affected you.

[00:00:47]

Raymond DuBois, MD, PhD

[00:00:48]

I think in retrospect, it's always important to look back and think about everybody at your experiences, where you've been. So I must say that my time at MD Anderson was really important. I learned a lot about how to administer large budgets, how to oversee large groups of employees. I was heavily involved in some of the planning for new buildings and felt like I was completely welcome as a part of that process, and so I got a lot of experience in all different aspects of the institution. In some ways it's like the time I spent at Hopkins, working with Dan Nathans, where I really got deep into basic science and learned how to formulate hypotheses and experiments, and carry those out in a very rigorous way. So, on the management/administration side, I think that was the equivalent at MD Anderson, and I'm really thankful, because a lot of the principles that we put in place, a lot of the issues that we dealt with, with Human Resources and employee management, and all those other things really came in handy at all of the jobs I've done since then, so I'm very thankful for that experience.

[00:02:11]

T. A. Rosolowski, PhD

[00:02:12]

Can you summarize some of those takeaways that you felt affected your leadership approach and philosophy?

[00:02:18]

Raymond DuBois, MD, PhD

[00:02:14]

Sure, sure. So, just basic financial planning and management really changed my view of that and how to do that in a much more rigorous way. And then the whole issue, we talked a little bit about this, but campus planning, you know how your campus is now and how you want it to be in the future, and those ideas and principles and how you can impact that. I really learned a lot at MD Anderson dealing with the Faculty Senate. A lot of people don't like that part of the job, but it's very important to listen to what the faculty have to say. A segment of the faculty doesn't really participate in the Faculty Senate, there's another segment that is heavily involved, but you have to listen to all sectors of the group to get a feel for what they think is going right and what they think is going wrong. Sometimes you just have to correct some of the impressions and sometimes you have to change the course of the ship to make sure that you're accounting for all those issues. And then the teamwork at the executive level is really important. I think the give and take and you know, you can't get everything you want, but you have to do what's best for the institution over the long haul.

[00:03:41]

And then the other thing that I learned was dealing with board members is very important for the success of the institution, so I had some close relationships with some of the members of the Board of Visitors and the Executive Committee of that group. They also have their own perceptions about where the institution is going and what success means, and sometimes you have to correct their view of that because they've got it a little off. Other times you have to react to their concerns and make sure that they know that the institution is in good hands and heading in the right direction. On all of those fronts, I learned a lot there and I'm very thankful for the time there and overall, it was a wonderful experience. I made lifelong friendships that are still alive today, so it was really good. I know we talked a little bit yesterday, about applying for the presidency and how that was disappointing, but those things happen in life and you just have to get gritty and get past that and go on.

[00:04:46]

T. A. Rosolowski, PhD

[00:04:48]

Well, I wanted to talk about the transition period, after you got the news and Ronald DePinho [oral history interview] was announced as the candidate. Tell me about that time. I actually started at the institution right around that time, so I kind of came when people were anticipating his arrival, so I have some memory of that period.

[00:05:14]

Raymond DuBois, MD, PhD

[00:05:15]

There was a lag time between when it was announced that he was going to take the job and he actually came down and assumed the position, so there was a lot of communications and discussion between me and Ron. Ken Shine was also heavily involved and wanted to make sure that the transition went smoothly.

[00:05:39]

T. A. Rosolowski, PhD

[00:05:40]

I'm sorry, I guess I should have asked you this first, just to set some context. Sorry to interrupt. In the course of these conversations, did you get a sense, from Dr. DePinho and from Ken Shine and probably other Board of Regents members that you may have had conversations with them, about what the rationale was for selecting Dr. DePinho.

[00:06:02]

Raymond DuBois, MD, PhD

[00:06:03]

I think it was pretty straightforward. There was a sense in the state, that MD Anderson was an outstanding clinical delivery for cancer care and they had done great things in taking care of patients and doing the clinical mission, but they felt like it was not exactly where they wanted to see it with regard to the science and the impact of that science. We had talked about what my ideas were about that were yesterday, but you know --so I think they felt like here we have this person coming from the Harvard System, Dana Farber, he had made some important discoveries, he had started two or three drug companies, and so extremely successful in that realm, and that would bring an expertise to MD Anderson that we hadn't previously had at that level. So I think that was the thinking and the rationale. You can argue that that probably wasn't a faulty—it wasn't faulty to think that way.

[00:07:15]

T. A. Rosolowski, PhD

[00:07:16]

I was wondering too, I mean there was so much interest in developing the research synergy among the various institutions in the Texas Medical Center, and we even mentioned John Mendelsohn's view of perhaps using South Campus as a way of creating an—

[00:07:36]

Raymond DuBois, MD, PhD

[00:07:36]

Incubator.

[00:07:37]

T. A. Rosolowski, PhD

[00:07:38]

Yeah. And if maybe they thought Ronald DePinho would bring something that could help jumpstart that. I was just wondering, because MD Anderson is in a large context.

[00:07:49]

Raymond DuBois, MD, PhD

[00:07:50]

No, I think that was—there was a lot of excitement about industry/academic partners, and I think he formed a number of those. I don't know how that all worked out but certainly, if you look at the revenue streams for academic institutions, in the past a lot had come from the clinical care delivered, and that's being eroded by the way reimbursement works and all that stuff. So there's a general trend across the country, to think more carefully and fully about academic/industry partnerships, and developing those in a way that brings an additional revenue stream. So I think that was probably a good rationale. If you looked across the country, some institutions, like the University of Florida, that discovered Gatorade, has gotten quite a bit of revenue from the royalties and everything on that. Then, at the University of Wisconsin, they discovered an anti-clotting drug, Coumadin, and I think they generated a lot of revenue from that stream. So there are these isolated instances where it's really brought a lot of revenue and that stabilized the finances of these institutions. I think it definitely makes sense. On the other hand, MD Anderson is a big place and it has a huge clinical service reputation, so you've got to maintain that and manage that well, to make sure that that's still headed in the right direction.

[00:09:30]

T. A. Rosolowski, PhD

[00:09:31]

Now tell me a bit about kind of the first hundred days and then the first 200 days. It evolved pretty quickly.

[00:09:41]

Raymond DuBois, MD, PhD

[00:09:42]

The first hundred days was getting to know each other and trying to understand what the new strategy was going to be. I think one of the things that Ron did do and fairly early on, was to start talking about the Moon Shots Program and how MD Anderson could get more involved in big team science and big projects, to solve major problems, and we already had these centers and institutes where we had put people into teams that were working on personalized cancer medicine and other things. So I think it was a natural kind of conversion, to bring those groups

into a larger sort of Moon Shot type project.

[00:10:30]

T. A. Rosolowski, PhD

[00:10:30]

What did you think about the research logic, because I know it was very controversial in terms of the benchmarks that researchers were being asked to meet. What's your sense of all of that?

[00:10:43]

Raymond DuBois, MD, PhD

[00:10:46]

Obviously, Tom's differences of opinion about certain things, I think that came later, sort of during the tail end of my time there, but I remember several discussions with Ron and also his wife Lynda [Chin], and they were talking, they were thinking what would be the lowest hanging fruit in order to try to do something that would have the biggest impact, and we kind of all decided that leukemia, since it's a blood-borne malignancy and you can isolate the cells and study them carefully, look at their DNA, and we had a huge leukemia clinical service there that were doing fantastic work, using both clinical research and basic research. So you know, we started formulating the plans to do something big --paradigm changing-- in leukemia. I think as a result of that, they brought in this IBM Watson team, which I didn't really interface with that much. But they were the group that --I think the idea was to bring in some artificial intelligence. I don't know if that platform was the best one, but it certainly was the one that everybody was talking about at the time. I know they eventually formulated some partnerships with IBM Watson, collected a lot of samples and a lot of data on the leukemia patients, but I don't know. I never saw sort of a major publication or anything like that. But the idea, I think was really right on track, because there has been a lot of progress in leukemia, because in a solid tumor, there are multiple different cells present. They all interact with one another and can affect the resistance to treatment or cancer progression in different ways, but with leukemia, those cells are kind of floating around in the bloodstream and they act more as a unit, instead of being influenced by other things. And so the thinking was, if you could really pin down all of the targets and all of the pathways that are involved in the transformation of those blood-borne cells, that you could really cure leukemia. I think that was thinking big and picking a disease that already had made some progress but clearly was one that could be a potential cure.

[00:13:32]

T. A. Rosolowski, PhD

[00:13:35]

What were some of the other kind of initial discussions, because obviously, this new president is coming in and is starting to reorganize things. What were you seeing in terms of how the administration was changing?

[00:13:50]

Raymond DuBois, MD, PhD

[00:13:51]

Well, I think there was a big push by Ron and his team, to sort of raise the bar. Ron used this unfortunate phrase that he called “culling the herd,” and you know that is another way to look at it, but I think that there was a big push for that. So, some of the criteria for promotion and tenure got raised. I think some of the faculty got upset about that and there was a lot of consternation about that, but the intent, I think, to really heighten the level of science and its impact was a good one. It’s just a matter of how you roll that out in a way that everybody can adapt to it and heighten their goals for what they need to achieve, and that’s just dealing with people and their reactions to things in a cultural change.

[00:14:47]

T. A. Rosolowski, PhD

[00:14:48]

What did you observe about the fit between Ronald DePinho’s leadership style and communication style and MD Anderson?

[00:14:58]

Raymond DuBois, MD, PhD

[00:14:59]

I think it was different. It was certainly different than Dr. Mendelsohn’s. Dr. Mendelsohn was extremely well liked by most of the faculty. He could relate to them on a personal level and I think they could relate to him, and he did listen. There were several times I remember, when a faculty member would talk to him and raise some concern and he would relay it to me and we would look into it and make sure that everything was in order and that we were treating everybody appropriately, so he did have concerns for individual faculty members. I don’t know if Ron ever really developed those kinds of personal relationships. I’m sure for Mendelsohn, it took time for that to happen, because he was there for over fifteen years. I’m sure it wasn’t as hunky-dory in the beginning as it was after people did eventually come to trust and really respect what he was doing for the institution. When he came, it was a huge change as well, because he really wanted to elevate the reputation, enlarge the clinical practice, and also deepen our scientific approach and make sure that we’re on the cutting edge of everything, and I think that was another culture change. So each time a new president comes on, I think it’s a natural transition that happens.

[00:16:33]

T. A. Rosolowski, PhD

[00:16:34]

Absolutely. Tell me more, because Ronald DePinho had some difficult times. I remember when I was interviewing, people were comparing him to R. Lee Clark, he was kind of going to lead the

institution into this new place, and there was a feeling.

[00:16:52]

Raymond DuBois, MD, PhD

[00:16:51]

I think that was the perspective and I think that's why the Board of Regents chose him, because they thought it was going to be a paradigm changing thing. And he did bring in a large team of people from industry that set up shop on the South Campus, in a much deeper, larger drug discovery effort, and we modeled—we did a bunch of renovations and other things to the South Campus Labs, to model after what industry was doing, to develop a discovery effort.

[00:17:30]

T. A. Rosolowski, PhD

[00:17:31]

Like what kinds of things did you do?

[00:17:32]

Raymond DuBois, MD, PhD

[00:17:33]

Well, you know we hired some chemists, and people from Merck who had been in a drug development situation, and so we had to put in a lot of these air flow hoods, so you can do the chemistry and vent off the solvents and everything, so they don't cause any toxic effects on the workers. That was a change in what the plan was for some of that space. They did a bunch of screening, to look for new drugs that affect different targeted areas, and I haven't kept up with it so I don't know how successful that was but clearly, it was a change in the direction of what was going on down there.

[00:18:20]

One of the things I noticed fairly soon after Ron came was he had lots of ideas. He was very excited about having this role and having an impact on the direction of the institution, so he did a lot of talking and tried to explain this to as many people as possible. In meetings, he would sort of dominate the conversation. I think if anything could have been done differently, if he would have just done a little bit more listening, I think it would have been helpful, but I think he was just so excited about what the possibilities were, the resources that MD Anderson had to deploy for these things were pretty enormous and it just was his energy and enthusiasm that sort of took over.

[00:19:12]

T. A. Rosolowski, PhD

[00:19:14]

He's clearly deeply, deeply committed to the mission of the institution and very emotionally

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involved because of his own personal story. It was interesting, in his resignation speech, he talked about the fact that he did not listen. It is kind of a classic mistake, and I've had many, many people say he had that kind of boiling over energy and just didn't.

[00:19:40]

Raymond DuBois, MD, PhD

[00:19:41]

Well, I think that was really the crux of my decision to leave. I could see how some of this was being interpreted by the faculty and others, and so I did have some discussions with Ron. I tried to give him advice about certain things and the way it would be better to do it this way than that way, and I don't think he took my advice seriously. I didn't really know him, we had never had any kind of meaningful relationship, so it's clear that he must have had people that he was—advising him or listening to, but I don't think I was one in particular that he was taking my advice.

[00:20:36]

T. A. Rosolowski, PhD

[00:20:37]

I was wondering too, and I wonder what you think about this, I mean the whole kind of culture collision between the Northeastern, Ivy League, and a Texas institution that has a lot of pride in its Texas roots, I mean it truly does.

[00:20:55]

Raymond DuBois, MD, PhD

[00:20:55]

Being a native Texan, I can tell you that Texans always brag about what they've done and they elevate it just a little bit higher than it might be, but that's just the pride coming out. Texas also has a can do attitude that's real and they do put their money where their mouth is, you know they've built some amazing—Rice University is one of the top private universities, and MD Anderson is perennially ranked the number one cancer center in the world and it does have a huge global reach in a lot of different ways. So yeah, I think some Texans thought it was doing pretty well already. But I think people coming from Boston or the Harvard System, they do have high standards and they've obviously achieved a lot in their own situation, so that could have been a clash between cultures there.

[00:21:52]

T. A. Rosolowski, PhD

[00:21:53]

And sort of not --again, the failure of listening. You know, what is the culture that I'm moving into and how to fit with it instead of imposing something. I think that was a concern. And I don't know about Texans, with MD Anderson, as they said, it ain't bragging if you done it, you

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know? [laughter] So, I don't know if MD Anderson is really bragging or inflating.
[00:22:20]

Raymond DuBois, MD, PhD

[00:22:21]

No, there's a lot to be proud of. They've taken care of a lot of the citizens who have had cancer in the state, and you know the prevention group has reached out to all far reaches of all the different counties around. We had always gotten a lot of support from Midland, which is out in West Texas, and so there is a lot of general support around the state.

[00:22:47]

Chapter 15

Institutional Changes and the Decision to Leave MD Anderson

B: Institutional Change;

Codes

C: Leadership; D: On Leadership;

B: Critical Perspectives on MD Anderson;

B: Building/Transforming the Institution;

B: Multi-disciplinary Approaches;

B: Growth and/or Change;

B: Obstacles, Challenges;

B: Institutional Politics;

B: Controversy;

B: The Business of MD Anderson; C: The Institution and Finances;

B: MD Anderson History; B: MD Anderson Snapshot;

D: Ethics;

B: Research;

A: Activities Outside Institution;

T. A. Rosolowski, PhD

[00:22:50]

Tell me more about the observations that you were making that kind of led to your decision, because you left in December [2012] and Dr. DePinho arrived September 1st [2011], I guess it was, so it was pretty quick, your decision. Tell me about that whole process.

[00:23:05]

Raymond DuBois, MD, PhD

[00:23:07]

Well you know, I had been approached by other institutions, to look at jobs, and I really had—you know my whole plan was to really finish my career in Texas, because my family lives there and I had such roots there growing up, all undergrad and graduate school and medical school were all in Texas institutions. So the hope I had was that that would be where I could have the most impact. It didn't work out obviously. So, the president of Arizona State had been calling me a few times, even before Dr. DePinho took over. I had actually been asked to take the job as the director of the Duke Cancer Institute, and I decided I'd rather stay at MD Anderson. I probably shouldn't say that, because the person there now is wonderful, but I didn't really get an official offer, but I made it clear that I was going to stay at MD Anderson and try to make things work out there. At one point, I just decided, I just didn't think it was going to work out, and the

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main reason was that my view and approach was just really different from Ron's, in major ways.
[00:24:38]

T. A. Rosolowski, PhD

[00:24:39]

How would you pinpoint those differences?

[00:24:41]

Raymond DuBois, MD, PhD

[00:24:42]

Well, like I said, I think that saying things to the faculty like "we're going to cull the herd," that to some people is kind of demeaning and it's just not my style. It's not a message that I really wanted to propagate. So you know, there were those issues. There were issues of resources we were providing to some of the people that Ron had recruited. We were pretty generous and we decided that in order to recruit the people from industry, we had to give them a higher salary structure than what we normally did with recruits to the cancer center.

[00:25:28]

T. A. Rosolowski, PhD

[00:25:29]

What was your concern about that?

[00:25:31]

Raymond DuBois, MD, PhD

[00:25:31]

Well, when you have a two tier system like that, people always perceive that there are haves and have nots, and I think it did cause a lot of consternation and concern, because if you got recruited into one segment there, you got a much higher salary. If you got recruited into let's say the Preventive Medicine Division, you got a much lower salary and the work, the scope of work was not that different in some cases. It creates a two tier system. Margaret [Kripke, oral history interview] had always shied away from doing that and she was the one that really wanted to make sure everything was transparent and fair and according to some principles, and so I continued that after I took over for her. This sort of changed that paradigm, when you have a two tier system like that, and sometimes it's hard to justify that with some of the faculty. That was clearly an area of difference.

[00:26:39]

T. A. Rosolowski, PhD

[00:26:40]

What were some others?

[00:26:40]

Raymond DuBois, MD, PhD

[00:26:42]

Well, I was a little concerned about going totally into the Moon Shots Program. I just felt like we should do some pilots and try the leukemia one and then see how that goes. But I think Ron was really anxious to get everything going in multiple different areas, and who knows? Maybe he was right and I was wrong, and if you're going to do something just do it whole hog and get on with it. So we definitely differed in our opinion about how to roll that out and take a little bit more cautious approach, as opposed to multiple Moon Shots all at the same time. Looking back on my career, usually, when I come to a new institution or take on a new role, I try to focus on two or three things and really put all our energy on that to be successful, and you know, we're going to try to focus on ten or twelve things. I just think it's so much harder to amass the resources and have enough attention to all the details that need to be done.

[00:27:57]

T. A. Rosolowski, PhD

[00:27:58]

There's also always shockwaves when you make big change. Was that also part—you know what were you seeing with all of these changes, what kind of vibe were you picking up from the faculty, from staff, about the changes?

[00:28:15]

Raymond DuBois, MD, PhD

[00:28:15]

Well, I think there was concern. I think there was excitement at first, because it's a new leader who had been successful in his career and had really made important discoveries, bringing that expertise. And also, in some academic industry business deals that he had done were very successful. So I think there was excitement about having somebody come in that had a different perspective, a different circle of experience, and bring that to the institution. But just some of the management style and how that rolled out, eventually I think caused concern. MD Anderson, like I said yesterday, has a lot of people who have been dedicated to the institution for twenty or thirty years, so there's a lot of people that have seen presidents come and go, and so they had experience with the different leadership. I think it was just, for some of those folks, too much of a change too quickly and they weren't able to deal with it. Then what happens is if you do stumble and the finances don't end up going in the right direction, then there's always a lot of finger pointing about that, because we had, even during that great recession, we had had a stable financial system and we had been able to respond to that economic downturn in a way where we still made a margin. We had to cut back on things, but we eventually lifted those restrictions as we came out of that economic downturn and our finances were never in the red, so that was really quite an achievement. And then when—I just know what I read from things in the public, that MD Anderson did experience a pretty significant budget deficit-- and that that creates a lot

of negativity, and people who feel like well, maybe this wasn't the right way to go. Then they do finger pointing and stuff like that and it just sort of builds on itself and makes it difficult.

[00:30:30]

T. A. Rosolowski, PhD

[00:30:32]

It was obviously a hugely complicated situation and also, I didn't say this earlier and should have, that one of the reasons that I wanted to really kind of reframe this period, is that obviously, institutions are living things and they're always changing, but Ronald DePinho's arrival really did jumpstart a period of change, of real transformation, that the institution is still going through.

[00:31:00]

Raymond DuBois, MD, PhD

[00:31:00]

Right.

[00:31:00]

T. A. Rosolowski, PhD

[00:31:31]

And so these interviews that I'm doing with you and with other people who are making these observations, it's really helping to understand what is that all about, why did that happen. I mean yes, there are personalities involved, but these personalities set in motion, certain kinds of processes that the institution and the people that are managing it have to respond to in a very real way.

[00:31:23]

Raymond DuBois, MD, PhD

[00:31:24]

Right.

[00:31:24]

T. A. Rosolowski, PhD

[00:31:24]

So you know, that's really the source of my questions.

[00:31:27]

Raymond DuBois, MD, PhD

[00:31:28]

I understand. I think that there were big changes made in the organizational structure and the leadership structure.

[00:31:34]

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T. A. Rosolowski, PhD

[00:31:36]

What was done and how did that have an impact?

[00:31:39]

Raymond DuBois, MD, PhD

[00:31:40]

Well you know, even during my remaining time, we still had the three EVPs in place, and so that was there. I think bringing on the industry group on the South Campus, you know they—I don't think it was set up directly. They reported a lot of their efforts directly to Ron and Lynda, and so we hadn't really had organizational units at the institution, from that level of the organization, reporting essentially to the president, so that really changed some of the structure and thinking, so that it was different.

[00:32:28]

T. A. Rosolowski, PhD

[00:32:28]

Was there a sense that there was a lack of transparency in that direct relationship?

[00:32:32]

Raymond DuBois, MD, PhD

[00:32:33]

I think sure. I mean, certainly I didn't know some of the things that were being done or what was happening. I know that there had been some discussions with folks at Rice University, to collaborate on some of those efforts, which obviously it's a great choice. Rice is fantastic, but neither I, nor some of the other people really knew the details of what was happening. I think you did feel like there were certain things going on over here that had always been out in the open and transparent before, so that was a change.

[00:33:10]

T. A. Rosolowski, PhD

[00:33:11]

I mean it also just seems, as provost, who is overseeing all the academic affairs, that that would be within your scope of interest and influence.

[00:33:22]

Raymond DuBois, MD, PhD

[00:33:23]

I always saw it as my job, to try to help facilitate all of that stuff as much as possible. For example, with the Graduate School for Biomedical Sciences, I had always met with Dean Stancel

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[oral history interview] regularly and talked about ways that we could improve the quality of the students, and recruiting and the reach and all that stuff. Certainly, I had been involved in all the other issues. We had just everybody just openly discuss that, and our opinions were sought out and stuff like that, so that did change, sort of those working relationships. Then it's a little unusual to have the president and his wife having such prominent positions within the institution at the same time, so that caused some friction in dealing with how resources were distributed and things like that, that probably the faculty felt like there was some lack of transparency there.

[00:34:25]

T. A. Rosolowski, PhD

[00:34:36]

People were openly talking about conflict of interest and ethical violations. What was your sense of that at the time?

[00:34:35]

Raymond DuBois, MD, PhD

[00:34:37]

The biggest single issue, I think that really fell on my plate during those concerns, was the application that Ron and Lynda made to get funding support from CPRIT. The way we had set up the CPRIT process was that most—I mean everything sort of flowed through the Provost's Office, so there was a portal that everybody sent their grants to. What I saw as my goal, was to try to help make sure that those grants were as competitive as possible. So we would pre-review those. We would make sure that all the needed editing and changes were made before we actually put that application forward for review by CPRIT. Like I said yesterday, I had developed a pretty good relationship with Al Gilman, who was the chief scientific officer for CPRIT, and he asked me, on two or three occasions, if I could try to make sure that they just didn't get hundreds of meaningless applications. I think he talked to each institution in Texas, to try to have some sort of way to make sure that only the really most competitive applications were put forward, because he was asking people from outside the state to review these and that it would be much more efficient if we really just stuck with what we thought the best science was. I talked to Dr. Mendelsohn about that and he agreed. He wanted us to be as competitive as possible and do whatever I needed to make sure that we got those most competitive applications submitted for evaluation. I just remember getting a call one day, from Dr. Gilman, and he was asking me about the grant that Ron and Lynda had sent in. Frankly, I didn't really know anything about it. I mean I was taken by surprise because he hadn't discussed it with me. It hadn't come through the office or whatever, like we usually do with most of those applications and obviously, he was very concerned about that.

[00:36:51]

T. A. Rosolowski, PhD

[00:36:53]

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And what were the concerns that he expressed?

[00:36:55]

Raymond DuBois, MD, PhD

[00:36:58]

Dr. Gilman was worried because he said that instead of going through whatever the normal CPRIT application process was, that it went directly to one of the individuals by email, to be evaluated for consideration, so that was very unusual.

[00:37:18]

T. A. Rosolowski, PhD

[00:37:19]

And this was to a reviewer?

[00:37:19]

Raymond DuBois, MD, PhD

[00:37:20]

Well, to a leader of the review team that looked at those grants. After that, obviously, I did talk to Ron about it and found out that I think they had felt like they had been instructed to send it in that way, and that's how that came about. It created a lot of consternation in the state and eventually, Dr. Gilman resigned from CPRIT, because of some of the issues that came up after that. So it created some waves and some of the reviewers that were from the outside, reviewing the grants, really got concerned and they resigned from their role on the review team. So it did have a national impact. Eventually, I think the grant was withdrawn and that was the end of it. I don't know what your understanding of that was.

[00:38:24]

T. A. Rosolowski, PhD

[00:38:25]

Well, I just know what I read in the Cancer Letter and with discussions, is that --I mean again, it seems as though there could have been a different response, because the approach was kind of the specialness of this research team, and when it was discovered that this had had as much impact as it did, there could have been a different way of handling the aftermath, is my feeling.

[00:38:55]

Raymond DuBois, MD, PhD

[00:38:55]

Right, right.

[00:38:56]

T. A. Rosolowski, PhD

[00:38:57]

To kind of do the impression management after the fact.

[00:39:00]

Raymond DuBois, MD, PhD

[00:39:01]

No, it wasn't a good time for us, because I think the outside interpreted that as we were trying to get a special favor out of the grant or special consideration. It didn't go through the portal. It didn't follow some of the procedures that were in place.

[00:39:20]

T. A. Rosolowski, PhD

[00:39:20]

Which throws the whole process in question. I mean it kind of goes beyond MD Anderson and some people had decided to take the bull by the horns.

[00:39:30]

Raymond DuBois, MD, PhD

[00:39:30]

Well, it also led to a stoppage of consideration of any grant, so there was a pause in the CPRIT System for several months, to reevaluate everything. Actually, Margaret Kripke was brought on to follow Dr. Gilman as a chief scientific officer, and I think she helped to really reorganize that so that it was seen as an open and transparent system, and was able to recruit other reviewers to come in and review those grants and then it got back on track. So that was a good outcome but a tough time, when there was so much consternation about what was going on there.

[00:40:13]

T. A. Rosolowski, PhD

[00:40:14]

Now you were mentioning the reactions of some of the very long-term faculty and administrators at MD Anderson, and I'm curious what you were hearing from them about what their concerns were in the institution.

[00:40:30]

Raymond DuBois, MD, PhD

[00:40:32]

Well you know, some of them were concerned about lack of transparency and favoritism and nepotism and things like that, and they brought those concerns forward. The potential conflicts of interest of Dr. DePinho and his wife were managed at the UT System level, so as the provost, we were managing all of those issues with regard to the faculty and department chairs and

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division chiefs, but it's probably not a good idea to try to manage that for your boss, so I think it made sense for those things to be dealt with at UT System. I think they just had a lot of concerns that they were really being dealt with properly and we really didn't know what the management plan was, certainly early on, and there definitely was a lot of concern about that and a lot of discussions with faculty about how that could be better dealt with. I certainly relayed all those concerns to Dr. Shine and he wanted to step up the role of the UT System and managing those things, and that sort of evolved as I was leaving and I don't know exactly how it ended up.

[00:41:53]

T. A. Rosolowski, PhD

[00:41:54]

What was happening in the Executive Committee?

[00:41:58]

Raymond DuBois, MD, PhD

[00:41:58]

Well, we were hearing a lot more about what Ron wanted to do and changes he wanted to make in the institution and I think that was an appropriate use of those meetings, because we really didn't know Ron or exactly what he wanted to do, and it was important for us to understand what our marching orders were going to be and how we're going to respond to that. I think we were listening and hearing all of these things and trying to come up with how we could actually make those things happen, in a way that was compatible with how MD Anderson worked. I think a lot of the time was spent on that.

[00:42:46]

T. A. Rosolowski, PhD

[00:42:47]

I'm just curious, because you had talked about this really good working relationship among these people who really shared a vision for the institution and suddenly, you got a new vision that you have to respond to.

[00:43:00]

Raymond DuBois, MD, PhD

[00:43:00]

Right.

[00:43:00]

T. A. Rosolowski, PhD

[00:43:00]

And I'm curious what people's reactions were and how that affected kind of the working

relationships of the Executive Committee.

[00:43:09]

Raymond DuBois, MD, PhD

[00:43:10]

Well, it did change. I mean clearly, Dr. Mendelsohn had his own leadership style and Ron had a different leadership style, so the information flowed a lot more from Ron directly. Like I said, I did try to provide feedback and input, to put my two cents in, in terms of how I think we should do it, but I agreed with Ron when he gave his resignation speech, that he just didn't listen a lot, to what we had to say. I guess one of my biggest concerns, we were spending money at a significantly higher rate than we normally had ever done before. I think the idea was we were going to raise more money philanthropically than we had done before, so that would offset it, but I think in the long run maybe that didn't happen and that led to some of the financial strain. Because you know, reengineering all those labs on the South Campus and putting all those hoods in was very expensive, because that wasn't in the original plans. I think we had to put in seventy high flow hoods down there, and other changes that were being made, to adapt to the new vision were costly and we had now, a two tier system for the salaries of all those individuals brought in from Boston and that added some strain on the budget. And then there were other activities underway, with joint ventures and things like that, that I wasn't really involved in, but I'm sure that it led to some additional cost. My budget as the provost, per year, was really, it amounted anywhere from \$12-17 million for new recruits, so in my mind actually that was a pretty hefty budget, because that would include the startup packages and all the things it took to bring on new faculty. We had recruited a few hundred faculty during my time as provost, but then I think that budget really got much bigger because of some of the recruitment packages that were given to individuals that came on after Ron joined the institution. That also—and I don't know what those numbers were, but it was much more than the amount that we had usually been investing in that effort.

[00:45:51]

T. A. Rosolowski, PhD

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There's one word that comes up over and over as people describe kind of the "true" MD Anderson culture, it's democratic. [laughter]

[00:46:03]

Raymond DuBois, MD, PhD

[00:46:05]

No that's true. I think we did listen to what the faculty had to say. We wanted to take everybody's input into account. Obviously, we didn't always make the decisions that they wanted, but they felt like they were listened to and they had input, and that's important, to have

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that give and take.

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T. A. Rosolowski, PhD

[00:46:25]

And they also felt there was a system in place where people were treated pretty much equally, I mean over and over people say that.

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Raymond DuBois, MD, PhD

[00:46:31]

Yeah, and I have to give Margaret some credit for that, because I think when she came onboard, that was a really important thing for her to accomplish, and she really set up the framework so that that happened. I just walked into what she had already set up and we continued that.

Clearly, she wanted everything to be open, transparent, and people clearly understood how decisions were made and I think that did change after Ron took over, just because he had a different style and came from a different system.

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T. A. Rosolowski, PhD

[00:47:09]

Is there anything else you wanted to add about kind of this transitional period and things that were of concern to you?

[00:47:15]

Raymond DuBois, MD, PhD

[00:47:15]

People always point fingers and blame people for certain things, but I don't really blame Ron per se. I think he had never managed that kind of organization before. He had never been engaged in a complex, multi-thousand employee, fifteen million square feet institution, and so he jumped from managing a fairly small institute and his laboratory people, into a huge CEO like type position. I just don't think it's possible to adapt to that overnight.

[00:47:55]

T. A. Rosolowski, PhD

[00:47:56]

And he wasn't really a clinician, so I think much as he may have been committed to the clinical enterprise, it didn't seem to me he had the detailed knowledge of the inner workings of it, and it wasn't the most important thing on his kind of driving mission.

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Raymond DuBois, MD, PhD

[00:48:14]

Yeah, I think it was working well and the clinical enterprise generated a lot of revenue for the institution, so I don't think he put a lot of thought into that but I'm sure he listened to what Tom Burke and others had to say about things. You know, we did expand the number of ORs and things like that, and so there was still attention to the clinical enterprise.

[00:48:38]

T. A. Rosolowski, PhD

[00:48:38]

Right. No, I wasn't meaning to say that he ignored it but you know, people come in with an experience base, particularly if they were hired, in order to act on that very powerfully, that was his messaging, was really exclusively about that one area.

[00:48:56]

Raymond DuBois, MD, PhD

[00:48:58]

I think that after he finished his clinical training, he pretty much focused on research, whereas even Dr. Mendelsohn and myself, we did have some extensive experience practicing medicine and running—Dr. Mendelsohn ran the Medicine Department at Memorial Sloan-Kettering. At least I ran a Clinical GI Division at Vanderbilt, so you know that we had a different perspective I think.

[00:49:27]

Chapter 16

New Roles at Arizona State University and the Medical University of South Carolina

A: Overview;

Codes

A: Character, Values, Beliefs, Talents;

A: Personal Background;

A: Professional Path; C: Evolution of Career;

A: Inspirations to Practice Science/Medicine;

A: Influences from People and Life Experiences;

A: Activities Outside Institution;

A: Career and Accomplishments;

T. A. Rosolowski, PhD

[00:49:27]

Right, very interesting. Anything else you wanted to add about that transitional part?

[00:49:34]

Raymond DuBois, MD, PhD

[00:49:34]

Well, it was difficult. At some point my wife and I looked at one another and decided, maybe this is not going to work out, and so we had to look at other plans. President [Michael] Crow from ASU called me at least two or three times and the first time I said no, we're going to stay in Texas, and then as this evolved, I started looking at that a little bit more carefully. At some point we just decided maybe the best thing was to move away from MD Anderson. That was a tough decision too, because my whole idea of coming back to Texas was to stay there for the rest of my career, and obviously that wasn't going to work out. But things happen and you have to adjust to those changes.

[00:50:20]

T. A. Rosolowski, PhD

[00:50:20]

Right. So what did this new role offer you?

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Raymond DuBois, MD, PhD

[00:50:25]

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At Arizona?

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T. A. Rosolowski, PhD

[00:50:26]

Mm-hmm.

[00:50:26]

Raymond DuBois, MD, PhD

[00:50:27]

Oh, well, you know it was almost like in a way, going on sabbatical, because it was a very large research institute in Arizona called Biodesign, and ASU had put a lot of resources, the state had put a lot of resources into it, and it was this experiment to put the physical sciences and biological sciences under one roof and allow these physicists and engineers to collaborate with doctors and biological basic scientists and create a real sort of convergence of the two sciences. I must say, it was a lot of fun, working with those people, and it was all focused on research, although I had an appointment at the Mayo Clinic in Arizona and I was helping manage their cancer prevention program and trying to develop collaborative efforts between Arizona State and the Mayo Clinic.

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T. A. Rosolowski, PhD

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And just for the record, I wanted to say that this was the role of executive director of the Biodesign Institute.

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Raymond DuBois, MD, PhD

[00:51:39]

Right.

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T. A. Rosolowski, PhD

[00:51:40]

From 2012 to 2016.

[00:51:41]

Raymond DuBois, MD, PhD

[00:51:42]

And then obviously, I was professor of medicine at the Mayo College of Medicine. So I had an office out at Mayo and a lab, and then I had an office and lab down in Tempe, at the Arizona

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State campus. It was a beautiful building, it had been designed to really merge these two areas of science, and it was a lot of open space and open lab design, so it was really nice. There were only 700 people at the whole institute, so it was a huge relief of administrative burden, and so it was very easy for me to manage that size group. I mean our annual budget was about \$70- or \$80 million, so compared to the whatever, \$4- or \$5 billion at MD Anderson.

[00:52:36]

T. A. Rosolowski, PhD

[00:52:36]

Right.

[00:52:37]

Raymond DuBois, MD, PhD

[00:52:37]

It was a much, much more—and I had already gained all that expertise there, so it was—that was a sort of relief in a way.

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T. A. Rosolowski, PhD

[00:52:48]

So what were you able to accomplish during those years?

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Raymond DuBois, MD, PhD

[00:52:50]

I was there for four years. Initially, I just wanted to build the morale back. There had been a previous director who sort of didn't really pay much attention to the team there and had gotten involved in his own industry development projects and was sort of in absentia. So I came in and started having town halls and on a regular basis, would meet with everybody. Everybody could meet in the atrium there and talk about what I thought we were doing well, where we wanted to go, and how we wanted to grow the institute, and eventually, we laid plans to build a new building, which just got opened a few months ago, so that worked out. It's called Biodesign C, and it's connected to the Biodesign Building there, and that building won a lot of architecture awards and things like that, so that was a lot of fun, because I had experience in designing in Houston and I was able to use that to continue with the process in Arizona. So the faculty morale improved and I provided support for pilot projects and other things for people to collaborate, and our extramural funding went up as a result of that. I was able to forge relationships with the science departments on campus. I reached out to the philanthropic community and they provided philanthropic support for the Biodesign Institute. I actually was asked to join the commerce --the City Commerce Division, to talk about bringing biotech and other things to Phoenix. So I met with the mayor and others and had really good relationships with them and tried to forge relationships with the Children's Hospital there and other biomedical institutes. We had one of

our faculty who had a joint appointment at the VA and did infectious disease research, and so we really tried to collaborate on a larger scale, especially with the medical community.

[00:55:11]

T. A. Rosolowski, PhD

[00:55:11]

I wanted to ask you if this interesting phenomenon that's happening over and over now, over and over again at institutions, which is bringing together these disciplines that have traditionally been so compartmentalized. Do you think that now there's kind of a special temperament or special skills that people need to kind of build those collaborations?

[00:55:37]

Raymond DuBois, MD, PhD

[00:55:38]

Definitely, you have to have some give and take, because you don't always get your way with everything, but hopefully, people keep in mind, the greater good that can come out of that. We were a fairly small institute and we couldn't do it all, so everybody—and I explained this to all the center directors. There were ten or twelve research centers that were already in place there and then I created several new centers; one was in structural biology and one in Alzheimer's disease. For the Alzheimer's Center, we reached out to Banner Health, which is a huge health system in that part of the country and Eric Reiman, who is one of the world's experts in Alzheimer's disease, we joined forces and were able to create a world class Alzheimer's Research Center at the Biodesign. We brought in several—they're still recruiting investigators to join that. So that, you know building those bridges was really important. Even MD Anderson has this cancer center in Gilbert that was a collaboration with Banner Health, and I also worked with those individuals there to enhance the cancer research that was being done at the Biodesign Institute and we met with them several times. They were very interactive and wanted to be involved in those collaborations. I think that was a very fun time, very successful. My wife really enjoyed living in Arizona, because there are so many outdoor activities, and our house was positioned between two mountains; Camelback and then another one in the back of our house, and so she essentially hike every day on those mountains and she really enjoyed that. For me, I got to the point where it's very hot there most of the year. I just got to the point where I couldn't tolerate the heat as well as she could. During the summer, there would be stretches of time where the temperature would be above 106 or 110, for several days, and I'd never been exposed to that kind of climate. Some people love it, but I just felt sick. I think I must have some heat shock proteins that were precipitating or something, I don't know what it was, but eventually we realized that maybe we weren't going to be able to survive there.

[00:58:17]

T. A. Rosolowski, PhD

[00:58:17]

It's a huge quality of life issue it really is.

[00:58:19]

Raymond DuBois, MD, PhD

[00:58:19]

No, it's very dry and a lot of people like the dryer climate, but I had always lived in an area of humidity and so I just don't think my body was adapted to it. So when this job became available they called me and they knew that my wife was from South Carolina, she was born and raised in Greenville, South Carolina, and most of her family lives in this region of the country. So I said I think I should look at this, you know, I just don't know how long I'm going to survive in this heat. Even though the job was a lot of fun, there were no issues there, I mean it was great. You know the other thing that we did was we built a collaboration with South Korea, for our structural biology group. South Korea was building this new laser that was going to be able to do these studies at a much higher resolution than anything we had used before, and so we took several trips down there, we set up the collaboration, and I think that's even still going today. There was a collaboration with Hamburg, Germany, because they already had a laser that was about ready to get activated and our team could really do some incredible studies on that. That Structural Biology Center is phenomenal. They published one or two papers a month in very high impact journals, on solving the structure of these very difficult proteins to solve, so I learned a lot about physics and structural biology that I never knew before, it was real exciting. The Germans tried to recruit one of our faculty and luckily, we were able to keep her there, and we built, in the new building, a little area where they're developing a miniaturized laser, which would really change the technology, because you don't need to build these huge, long tubes, you can sort of do it on a tabletop. We recruited a physicist from MIT who came down and it was real exciting and hopefully, they're going to be able to build that laser and it will change the paradigm for that kind of technology. So that was also a lot of fun.

[01:00:42]

President Crow is a very dynamic individual. He had served as the vice provost at Columbia, came there and you know, the research funding has gone in the \$2- to \$300 million, now it's in the \$6- to \$700 million range, so he's really transformed that whole university and it was exciting to be a part of it. Like I said, for personal reasons, and then health reasons, I had to get back to somewhere that had some sort of humidity, so I could survive. So they called me about this job and I had never thought about being a dean. Most of my career was as part of a cancer center and then the Research Institute there, which is a really unique approach. There's not many institutes that are configured like the Biodesign Institute. So I looked at it, I interviewed, and after the first or second interview, they basically said they thought I was the right person and they want to offer me the job. So, Lisa's mom had been having some health problems and she was living by herself, in a huge house up in the north end of the state on the mountain, and in the wintertime the road freezes, it's hard to drive, and she had had some health scares where she had passed out and other things, so we just felt like it was time to try to deal with that. Lisa's brother

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lives here, he's lived here in Charleston for thirty years, he's the dean of the Law School, and her sister lives in Atlanta, and then her other brother lives in Raleigh. So it sort of brought the family back together. Then just fortuitously, our son, who graduated from A&M and then was working in Houston, decided he wanted to go to law school, and so he applied to the school here, as well as other schools, and since his uncle was the dean of the law school, he convinced him to come, and he did really well. He just passed the bar a few months ago and he's working in a local law firm, in one of the bigger firms in the state. So he's happy and we have a chance to be in the same city as he is. So for all those reasons, it worked out to be a good opportunity.

[01:03:04]

T. A. Rosolowski, PhD

[01:03:06]

So, what did you want to do when you came here, I mean a new job, a dean.

[01:03:12]

Raymond DuBois, MD, PhD

[01:03:12]

Well, you know in some ways, it's a little bit like the role I played when I came to MD Anderson. We really needed to raise the bar for the expectations of our researchers, although we have a group of faculty here --extremely dedicated and worked really hard, and are doing fantastic work. One of the things I noticed was they don't—unlike Texas-- they don't brag about what they're doing, so not that many people around the country really know some of the expertise and accomplishments that have been made here. So I've tried to help with that on the national --I have a lot of connections with AACR and other national organizations, to try to promote and do the bragging for the institution. Which --everybody had thought that we were part of the University of South Carolina in Columbia, and it turns out that we've been an independent Health Science Center since 1824, and the Medical School was developed by a few faculty that actually had come from University of Edinburgh in Scotland.

[01:04:27]

T. A. Rosolowski, PhD

[01:04:27]

Interesting.

[01:04:27]

Raymond DuBois, MD, PhD

[01:04:05]

At that time there was really no credentialing or anything like that, certification or anything like that, so anybody could start a med school. But they were pretty rigorous and hired some faculty from University of Pennsylvania who really got things going, and we were one of the first medical schools in the southern states really. I think University of Pennsylvania was the oldest,

but we were like the tenth oldest school that was formed in the country, and we're able to sustain that and in about four years, we'll be celebrating our 200th anniversary, which is amazing.

[01:05:05]

T. A. Rosolowski, PhD

[01:05:04]

Wow.

[01:00:07]

Raymond DuBois, MD, PhD

[01:05:07]

So I have done a lot of work trying to look at the productivity of our scientists and our clinicians, and put in an incentive based compensation plan for the clinicians, which was also a culture change for them but it has led to increased productivity and increased revenue stream for the institution. We've also interfaced with the hospital system, to have a formal funds flow, that funds flow back to the college to support different endeavors that are important for us to accomplish all of our missions. We're still in the process of tweaking that, so it's not a finished product but it's clearly a lot more well defined now than it was before I came. We've recruited a lot of faculty. I think over a hundred since I started. For example, we were able to recruit the whole heart failure team from Hopkins and we've recruited investigators from all the major medical centers, so we're assembling a group of experts here that you know, it's important for the state of South Carolina, because this is really the only biomedical research university in the state. The other medical schools are just mainly focused on generating doctors for family practice and general practice and other things, so we have a very important role in the state.

[01:06:41]

T. A. Rosolowski, PhD

[01:06:42]

This does seem like a really good fit for you in terms of experience.

[01:06:45]

Raymond DuBois, MD, PhD

[01:06:44]

Yeah, with my experience. The other thing I must say was --the one thing I missed in Arizona was not being a part of a real academic medical center, because even though Mayo was there, they're mostly focused on a clinical practice delivery, and ASU didn't have a medical school. I really missed being in a true academic medical center, so that was a big plus, coming back to the Medical University.

[01:07:16]

T. A. Rosolowski, PhD

[01:07:17]

And what does the academic environment give you that is so important?

[01:07:21]

Raymond DuBois, MD, PhD

[01:07:21]

Well, you have medical students and residents and fellows who can do research as well, and they're more medically oriented so they're in tune with the need for the translational research. There, I had graduate students in my lab, but they were really from chemistry or biochemistry and their whole role was to get a PhD and go teach in a small college or something, instead of practicing medicine or eventually doing biomedical research, or becoming involved in industry projects as well. So I think there's a lot of things that happened here that you don't get at some of the pure undergraduate universities that are important. Overall, I think it's gone reasonably well. Any time you have a new dean or whatever, it takes time for people to understand what the goals and things that the new dean wants to accomplish, so communication is really important, so I'm trying to streamline. I have a weekly communication newsletter that goes to all the faculty and I have a little message in there that I try to keep everybody up to date with exactly what's happening and what I'm thinking and where we're going. Right after I came, I met with—went to every single department faculty meeting, had a sort of open town hall thing, and tried to understand where they were coming from. It took a while to accomplish that, because we have over thirty departments, and they meet only once a month at the most, and it takes a while to cycle through all of those departments.

[01:09:10]

And then I think that one of our goals really is diversity and inclusion, and so we've really set up a very effective pipeline program to funnel minority students into the medical school, and we rank in the top five in terms of minority students that we train here, and 21 percent of our class is underrepresented minority. There's a lot of African Americans but also Hispanic and other [ethnicities], and we're very proud of that and they've been very successful. Some of them end up going—one of our top African American students went to do his residency at Boston Children's Hospital, and so they end up getting stolen to other parts of the country, but we're very proud of that, that they could compete for those kinds of positions. And so we've got a big effort on that.

[01:10:08]

The other thing I did, and some people are complaining a little bit because we made so many changes, but we created a new curriculum for the medical school. It's called a flexible curriculum. It allows the students to focus in areas of interest that they would like to pursue later. It's kind of tight, because we've had to cram a lot of things in, in a short period of time, but in addition to that, we were able to create a three-year MD program, so they can finish their

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MD in three years if they choose to do so and qualify for that program.
[01:10:49]

Chapter 17

Advances in Cancer Interruption

A: The Researcher;

Codes

A: The Researcher;

A: Overview;

A: Definitions, Explanations, Translations;

B: Research;

B: Prevention;

T. A. Rosolowski, PhD

[01:10:51]

Are you continuing with prevention work here?

[01:10:53]

Raymond DuBois, MD, PhD

[01:01:54]

Yeah, I still have my laboratory and I brought the lab, you know moved it from Houston to Arizona and then back here. The moving here, it caused some delays in some of our research, because we do a lot of research in mice, animal models, and moving the mice from Arizona to Charleston was really pretty traumatic to them, and so it's taken us longer than we expected to get the colony there.

[01:11:22]

T. A. Rosolowski, PhD

[01:11:22]

They liked the dryness and the heat. Sorry.

[01:11:24]

Raymond DuBois, MD, PhD

[01:11:25]

They did, they did, they seemed pretty happy out there, so it was quite a shock.

[01:11:31]

T. A. Rosolowski, PhD

[01:11:31]

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What was the shock?

[01:11:31]

Raymond DuBois, MD, PhD

[01:11:32]

Well, we've learned a lot about husbandry and things like that with mice, and I think for whatever reason, the diet they were getting out there and the diet they're getting here, they've had a hard time adapting to it and we think it's changed their microbiome in their intestines.

[01:11:50]

T. A. Rosolowski, PhD

[01:11:50]

Interesting.

[01:11:51]

Raymond DuBois, MD, PhD

[01:11:51]

It's also changed some of the experimental results, so we're trying to figure out exactly what's going on there.

[01:11:55]

T. A. Rosolowski, PhD

[01:11:55]

What is the research that you're doing right now?

[01:11:57]

Raymond DuBois, MD, PhD

[01:11:58]

We're continuing to look at potential targets of opportunity in premalignant disease. There's this whole area emerging called "cancer interception," that really started being talked about in 2008, 2009 era, and so instead of just studying the changes that occur in a fully transformed, stage four cancer, we're trying to understand what happens very early on, when for example, in the intestine there are polyps that transform into a cancer. We want to know what happens between the benign stage and the fully transformed stage, so we're studying it at a much earlier time span. We have found some potential targets of opportunity there. I had always been interested in how aspirin and other NSAIDs, reduce risk of cancer, and we're finding that what happens when you take these drugs is it changes the type of immune cells that are present in these premalignant lesions, and it lessens the chance that they're going to be converted into a full blown cancer. We just actually had a paper under review at *Science Magazine* for the past three weeks. I was contacted just a couple of days ago, that they've decided not to accept it.

[01:13:18]

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T. A. Rosolowski, PhD

[01:13:20]

Bummer. [laughter]

[01:13:20]

Raymond DuBois, MD, PhD

[01:13:21]

We're going to have to rework it and send it to another. We'll get it published somewhere but you know that's just the whole way the process works.

[01:13:27]

T. A. Rosolowski, PhD

[01:13:27]

It's the process, yeah. Did they say why?

[01:13:29]

Raymond DuBois, MD, PhD

[01:13:29]

They thought it was great work. They just felt like they have limited space. They publish, you know astrophysics and climate change and all this other stuff, so they can only take one or two biomedical papers per issue. They felt like ours just didn't reach the level that they expected for that kind of journal. So I don't know why they were so excited about reviewing it, but they could have told us that.

[01:13:56]

T. A. Rosolowski, PhD

[01:13:57]

Yeah, before editors.

[01:13:58]

Raymond DuBois, MD, PhD

[01:13:59]

But that's the way things go and we'll get it. In fact, we've already reworked it and put it in another format and we'll send it in to another journal soon.

[01:14:09]

T. A. Rosolowski, PhD

[01:14:10]

We didn't talk about the prevention work at MD Anderson. Were there high points from that,

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that you wanted to talk about?

[01:14:17]

Raymond DuBois, MD, PhD

[01:14:18]

I've been funded for this work for twenty-five years, I mean it's something that I've been involved in. It started off with the discovery of the cyclooxygenase-2 gene that we did at Vanderbilt, and continue to try to understand what the role of that pathway was, and so we've just continued that work and have gotten more details about why it has a role in cancer progression and how works and why it's an important target for opportunity, especially early on, at the stage where we could try to prevent things from happening.

[01:15:00]

T. A. Rosolowski, PhD

[01:15:01]

I'm actually going to close that door really quick, because I know that their voices will read. This little guy is very sensitive.

[01:15:07]

Raymond DuBois, MD, PhD

[01:15:06]

Yeah, they must be coming in.

[01:15:08]

T. A. Rosolowski, PhD

[01:15:14]

It's amazing, how sensitive these recorders are. I'm sorry to interrupt you.

[01:15:18]

Raymond DuBois, MD, PhD

[01:15:19]

No, no, that's okay. I've also taken on more of a national role in this, so I'm vice chair of the Scientific Advisory Board for the Stand Up to Cancer Foundation, and I've convinced them to start funding so called cancer interception projects, and so we funded Anirban Maitra at MD Anderson for interception of pancreatic cancer, and these grants are pretty significant. They're anywhere from \$10- to \$15 million, and he's really made some headway and we're excited about his work. Other prevention grants, in lung cancer and others, so it's really taken off, and I've gotten more involved in the fundraising enterprise for that foundation and it's been a great group of people, very dedicated, and I'm really excited that they're now doing to be funding projects that are focused on more early stage cancer and prevention.

[01:16:23]

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And then just recently, I was asked to be the editor in chief of the cancer prevention research journal for ACR, and I've taken on that role. In fact, I had a conference call yesterday after we talked, about how we're going to sort of change the focus of the journal and make it more focused on cancer interception in the future, and we're probably going to change the title of the journal as well. So that's exciting and to have an impact on a field like that, as an editor and chief of a journal.

[01:16:58]

T. A. Rosolowski, PhD

[01:16:59]

Well it's kind of cool because when you entered the field, this was a new arena of research.

[01:07:04]

Raymond DuBois, MD, PhD

[01:07:04]

Right, right.

[01:07:05]

T. A. Rosolowski, PhD

[01:07:06]

And now you're kind of embarking on an evolution of a new approach here, with cancer interception, that's sort of neat.

[01:17:12]

Raymond DuBois, MD, PhD

[01:17:11]

Right, right. I'm real excited about it and I've also started getting more involved in talking with the political leaders, you know the legislators in Washington. As part of my role with AACR, I meet with them on a regular basis, so I'm trying to get more energy and enthusiasm there.

They've already increased the budget for the NIH a few years in a row so that's really good, and I'm just trying to get them to sort of synergize with this prevention effort.

[01:17:47]

T. A. Rosolowski, PhD

[01:17:48]

What is your observation about why prevention in general is kind of hard to get traction, you know in institutions.

[01:18:00]

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Raymond DuBois, MD, PhD

[01:18:00]

Yeah, it is. It's always been a little touchy-feely, and the reason I say that is because we know -- and there's really good data to support this statement-- that we can prevent over 40 percent of cancer, but a lot of that is with don't smoke, don't drink too much alcohol, get regular exercise, have a healthy diet and avoid sun exposure. All those things that people just feel like you're nagging at them about, so they don't like to listen to that. What we're trying to do with this whole interception concept is make it more molecular and understand what things are changing when you make those changes, so that we can measure that and show people, well look, this pathway went completely away when you exercise twenty minutes a day, four or five days a week, it really has an impact on the tumor microenvironment or the number of premalignant lesions or whatever. So that we can show, using science, that this is really having an impact. There may be other potential things that we could add or subtract from the diet, or even chemo preventive agents that could be designed to help with that process, so that's why it's important to do the molecular research. But we want to make it a lot more scientific than social and behavioral, and hopefully that will have an impact. I think it's—you know, when you talk to a hardcore cancer researcher about prevention, they just say, what are we going to do to try to get somebody to stop smoking, it's impossible. They're going to eat McDonald's regardless of what we tell them. So they just sort of throw up their hands and go back to working on the late-stage lesions. So we need to do more science and there is an effort now --and NCI has come onboard, to do, like they did the Cancer Atlas Genome Project-- we want to do a premalignant genome project, to look at all the signaling and genetic changes in this premalignant lesions. They're on the skin, they're in the intestine, there are premalignant lesions in the breast cancer arena and others-- and really provide funding to understand that process a lot better, and then tie that in with some of the behavioral and social science that's been looking at how those behaviors affect cancer risk.

[01:20:35]

T. A. Rosolowski, PhD

[01:20:35]

This is sort of a technical question, but there has been this transformation of the understanding of cancer from one disease to multiple disease and to changing disease, and do premalignant lesions also have kind of transformational properties genetically?

[01:20:54]

Raymond DuBois, MD, PhD

[01:20:53]

Mm-hmm.

[01:20:54]

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T. A. Rosolowski, PhD

[01:20:54]

They do?

[01:20:54]

Raymond DuBois, MD, PhD

[01:20:55]

Yeah, they already have some. Some have mutations in the Ras pathway, and some have other changes in epigenetic pathways, that affect their malignant potential, and so that's actually a great question because what it brings up is that, what we're doing now for prevention is sort of one size fits all: don't do this, don't do that, whatever. What we're finding is that people, even though we call it the same premalignant lesion in different people, it's different. So in addition to the interception concept, we also need to personalize the advice that we give to individuals, on how to prevent cancer, because if they had a lot of family members who had pancreatic or colon cancer, they're automatically in a different risk category and they need to be a lot more suspicious about developing the disease and doing things in a prescribed way that reduces their risk, that somebody who has a normal family history, you wouldn't need to prescribe something like that. So we have to be a lot more personalized. We have to understand the changes in the immune system that occur, that allow—usually the immune system goes in and attacks the premalignant cells, gets rid of them, and whenever the premalignant lesion fends off the immune system, what has changed or what's going on there that prevents the immune system from doing its job, and then once the immune system is sort of shielded from those lesions, then they can progress at a much faster pace or become more fully transformed without being killed by the T-cells and other natural killer cells.

[01:22:40]

T. A. Rosolowski, PhD

[01:22:41]

So probably in that morass of complexity is the response to those people who say well, I smoked for thirty years and never got cancer, and I eat McDonald's every day.

[01:22:51]

Raymond DuBois, MD, PhD

[01:22:52]

They were just lucky because the array of mutations or whatever they developed, didn't cause them to go over the deep end.

[01:23:00]

T. A. Rosolowski, PhD

[01:23:00]

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Right.
[01:23:01]

Raymond DuBois, MD, PhD

[01:23:01]
But most of the time, it really does cause cancer to develop, and so if we can have the molecular correlates that we can show the patient, look you know, you have these lesions, your panel here looks very serious, and if we don't do something, you're going to really develop into a full blown cancer, we're more likely to have an impact on all those other things that we know decrease the risk, instead of just telling them to stop smoking or eat a Mediterranean diet or whatever.
[01:23:37]

T. A. Rosolowski, PhD

[01:23:38]
Well, that's a really exciting arena to be involved in.
[01:23:41]

Raymond DuBois, MD, PhD

[01:23:41]
Yeah, you know I've been working on it for a long time and hopefully, through the journal and through some of the funding that we're doing with Stand Up to Cancer, we can have a bigger impact.
[01:23:51]

Chapter 18

Final Comments on Leadership and Retirement

A: Overview;

Codes

C: Leadership; D: On Leadership;

D: On the Nature of Institutions;

B: Institutional Processes;

B: MD Anderson Culture;

B: Working Environment;

B: Institutional Mission and Values;

T. A. Rosolowski, PhD

[01:23:51]

Yeah, very exciting. Well, I don't even know if I dare ask you if you have plans for retirement, because you just sound like you're having way too much fun.

[01:24:00]

Raymond DuBois, MD, PhD

[01:24:00]

Yeah. You know my wife said, don't ever think of it, but at some point you do, you're definitely going to retire, but the good thing about working in academics, it's not manual labor or anything, so as long as you can think clearly and come up with good ideas and teach or whatever your contribution is, you can keep going. So I don't have plans. I mean I always thought I would work until the age of seventy or so, and I'm sixty-four, but I don't have any definite plans. I don't want to be the dean forever, that's for sure. I think, like I said, seven to ten years term is enough for anybody, and it's always important to bring on the next person, let them use their energy and expertise to have other impacts on the institution.

[01:24:54]

T. A. Rosolowski, PhD

[01:24:55]

Do you have a sense of what you would want to do next, after that kind of magic period when you think yeah, they need a new person here in this role.

[01:25:04]

Raymond DuBois, MD, PhD

[01:25:04]

Yeah, yeah. Well, it will happen at some point. I don't know, I mean I really enjoyed working

with some of the foundations, like Stand Up to Cancer. I'm still involved heavily, in the American Association for Cancer Research, so I'm president of the foundation board for that organization and I've helped them raise money for the programs they do as part of the society. I don't know. The thing about academic medicine is that things change and new opportunities arise that you don't expect and you just have to keep an open mind about that. I don't know exactly what it would be, but certainly, you know being a chief scientific officer for something or playing a role in helping lead some foundation effort to support science, or even continuing my own work --I think one of the things that I could do, after stepping down from a job like this, is to refocus the efforts on the laboratory and even set up a real serious cancer prevention program here, at a place like MUSC or somewhere else.

[01:26:25]

T. A. Rosolowski, PhD

[01:26:28]

I wanted to ask you just a final kind of leadership question, which is you know, if you had somebody sitting in your office who said to you, I really want to target executive leadership as my career goal, what are some bits of advice you would give that person?

[01:26:46]

Raymond DuBois, MD, PhD

[01:26:47]

I think early on, if they're really interested in that, I think they need to take some sort of leadership academy or workshop, to really understand what skills are required to be effective. You have to develop a really good skill for listening to people, and not just you know looking at them, but really trying to decipher what they're saying and what it means, and then acting on that and not just saying oh, it's just another whiner or something. So you really have to have active listening and then come up with a strategic plan for how you think being in that kind of role would have an impact. Whenever you interview for these jobs, that's what they're going to want to know. They're going to want to know more specifics about what you would do and how it would change the course of the institution. And then, in addition to that, now I think some sort of masters degree in administration, health administration or business administration, would really be helpful. When I was at Vanderbilt, I did take sort of an executive MBA course, that was part of the Business School, and these folks would come over after hours or on the weekend, teach us basic finance and personnel management skills and stuff like that. At the time I thought it was kind of stupid, but I think it really did help to understand some of the things that need to be done to manage all those things.

[01:28:25]

It's important for them to understand how to manage conflicts, because a lot of faculty and clinicians have conflicts with the nurses or with each other, or other things, and it's really important to really hone your skills on resolving those conflicts, because if they don't get

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resolved they're just going to cause problems later on. And then you have to put in some long hours, because problems arise at times that don't include the eight to five kind of schedule, and so a lot of times on the weekend or even in the evenings, I'm talking to individuals or dealing with other issues, to try to solve them,. You just can't do that from eight to five only, it extends into other working hours.

[01:29:15]

T. A. Rosolowski, PhD

[01:29:17]

I'm thinking about some conversations I have had with people at MD Anderson, who observed that for a long time, the tradition at that institution was to promote into leadership, the person with the thickest CV, not necessarily with this list of skills, and that's traditionally, I mean clinicians, and I'm thinking about clinicians because of MD Anderson's mandate that a president be an MD.

[01:29:44]

Raymond DuBois, MD, PhD

[01:29:44]

Right.

[01:29:45]

T. A. Rosolowski, PhD

[01:29:45]

Traditionally, that's just not included in the training of an MD or a PhD for that matter.

[01:29:52]

Raymond DuBois, MD, PhD

[01:29:52]

Right. No, no, I didn't learn any of that when I got my PhD or my MD, so I think it's time for us. I even had discussions with Dr. Mendelsohn about this when I was at MD Anderson. I think it's time for us to pick leaders that can really lead, not so much because they can do the most number of experiments or get the most number of papers, but there has to be sort of this emotional intelligence, to be able to deal with people in institutions and know what to do when. You have to have a personality that can adapt to all kinds of challenges. If you're too rigid, it just won't work, or if you're too lackadaisical, it won't work. You have to have a certain amount of involvement, you have to be able to give people some space and let them try to accomplish their jobs and obviously if they don't, you need to intervene and make sure that it happens, but you just can't be hovering right over them like you are with your lab assistant, looking at the data as it comes off the computer every minute of every day, because that is just not a good management style. That is going to engender the type and quality of people that you want working in the organization. So it is interesting, because I think traditionally, in academic

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medicine, whoever got the most grants or had the most publications always got promoted and took over the department or whatever the organizational unit was. But we really are at a critical time and we're going to have to pick leaders that have other skills. They can also have those qualities but other skills that enable them to really engender respect and real leadership.

[01:31:40]

T. A. Rosolowski, PhD

[01:31:40]

And it can also be, and I've talked to so many people who did focus for a long time in their careers, on the research, but then when they got promoted realized wow, I have to take on—I do have to learn a new set of skills, I have to take on a different kind of identity at this moment because being a leader is a different space.

[01:31:58]

Raymond DuBois, MD, PhD

[01:31:59]

Skill set, yeah it's a different skill set.

[01:32:00]

T. A. Rosolowski, PhD

[01:32:00]

A totally different skill set.

[01:32:02]

Raymond DuBois, MD, PhD

[01:32:03]

One of the reasons I kept working, kept my laboratory going, is I really enjoy that part of the enterprise. It also allowed me to understand what all the other investigators are going through when they try to get their animal approval or their IRB, or whatever it was, because I was going through the same processes. I could understand where those complaints are coming from. I don't think it's possible to have a busy practice, a research lab, and then a huge administrative burden. You've really got to pare that down, and so I really made my laboratory a lot smaller than it was when I left Vanderbilt, because I have time to deal with five or six people in the lab, but I don't have time to deal with twenty-five or thirty people. I think you just have to modulate all the things you do, to enable you to be successful in these administrative roles.

[01:32:58]

T. A. Rosolowski, PhD

[01:32:59]

I guess I have one other question about MD Anderson. Actually it was Bill Murphy that pointed

out that in industry, CEOs tend to have a lifespan of about five years, four years.

[01:33:16]

Raymond DuBois, MD, PhD

[01:33:17]

That's true, that's true.

[01:33:17]

T. A. Rosolowski, PhD

[01:33:18]

And MD Anderson has always been different, because of the long tenure of the presidents. Do you see that as—do you think that Ronald DePinho being there for five years has kind of broken that pattern and maybe brought MD Anderson in line with what the model of other academic medical centers and other industries is doing right now?

[01:33:40]

Raymond DuBois, MD, PhD

[01:33:40]

I think what you trade off on is stability for a changing leadership, in some of those situations. There's so much pressure in the business world to make sure the stockholders are happy with what's going on, and so there's modulations in the stock that they try to throw the CEO overboard every so often. It's a little bit of a different system, but I think you could have too long of a tenure. I mean clearly, Lee Clark had a huge tenure there and had a huge impact and I think when it started out, it was a fairly small operation, and so it was easier to manage. Then as it got bigger and bigger, it was probably more of a challenge for him to do all the things that he was doing in the first ten years there. It's become more of a business operation, so I think as we talked about yesterday, I think there is an ideal time of a leader being in place, and it's somewhere between seven and ten years. Five years is probably on the early side, but it's within that range of activity. A good example of this is at the Mayo Clinic. The Mayo Clinic often promotes internally for people who lead their departments or divisions, just because of their culture is so unique, and they have a really good internal leadership program that tries to bring people up who have the best skillset. Their term is seven to eight years, and then sometimes they do re-up it, but their CEO just turned over because he had finished a longer term, and they just feel like, from their experience—and you know, the Mayo brothers were in charge for like fifty years or something, but they've really evolved to more of a shorter term leadership model. I think it depends on how well it's going and how stable the institution is, and if there's a change in the—some big change in the way healthcare is delivered or the way research is done. It's probably not a bad idea to bring in somebody who has got other skills and can adapt to that better. And then there's also a lot of political and other issues that come to play in all those decisions. These Board of Regents turnover and then the new people want to have their imprint

on things, and one way to do that is to get a new leader of a particular institution.

[01:36:24]

T. A. Rosolowski, PhD

[01:36:25]

This is certainly a subject of conversation now at MD Anderson, because Dr. Pisters has taken over, there's been a huge reorganization administratively, and everybody is like okay, how long is this going to last? You know, I mean everybody is wondering, have we broke a pattern?

[01:36:44]

Raymond DuBois, MD, PhD

[01:36:42]

And that's really a good point, because nobody really thought about that before. I certainly didn't even think about it when I took the job with Dr. Mendelsohn because it's been such a stable institution. I guess my big mistake or whatever, is I didn't think about what would happen to me if there was a new president. It really does have an impact. This was a discussion we had—now, I'm on the Council of Deans for the American Association for Medical Colleges, and we have a Council of Deans meeting two times a year, and one of the people got up and talked about challenges and issues that really are life changing. He was the dean at a medical school, doing really well, got one of their clinical specialties in the top ten rankings, and he was going over to the president's office to talk about that. That's what he thought he was going over for, and a new president had come in and just said, you know he's making a change and won't be needing your services any more. He had, from his previous institution, somebody he wanted to be head of the Medical School. So you know it can just change your life in a split second, and I just never—I guess I wasn't smart enough to anticipate that and certainly live through it and learn from it, but that abrupt leadership change changes a lot of things, and I am concerned about the structure, the organizational structure of MD Anderson. I've had discussions with some of the faculty and I think they have concerns about the place, that sort of the academic mission is now, it seems much lower down in the institution and they're just concerned about what the long-term impacts of that are going to be.

[01:38:32]

T. A. Rosolowski, PhD

[01:38:32]

Well, it is interesting, I mean you talked about the impact of changing the title from chief academic officer to provost, and now the division has been effectively—I mean has been reorganized, but renamed. There's no Academic Affairs at all, it's Education and Training.

[01:38:51]

Raymond DuBois, MD, PhD

[01:38:51]

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Yeah. I think and a lot of those people have left the institution or been redeployed, and so it remains to be seen, how that evolves, but if I were a faculty, I would be a little bit concerned, because that position used to report to the president and now it reports somewhere much lower in the organization, or lower in the organization.

[01:39:16]

T. A. Rosolowski, PhD

[01:39:16]

Yeah, I was wondering about the messaging, and I haven't talked to anybody about this, interviewed them about it but certainly renaming the entire set of roles, Education and Training makes a very direct link with the mission areas. So there is that in terms of messaging but yeah, the governance structure has really altered reporting.

[01:39:36]

Raymond DuBois, MD, PhD

[01:39:37]

Yeah, so in my day, when I was reporting to Dr. Mendelsohn, if I had an academic concern or whatever, it went straight to the president. Now, I don't know how it trickles up to that level, and that's going to be interesting, to see how it evolves. Every institution goes through changes and adapts to those changes, and a lot of the time it's a healthy process. Sometimes mistakes are made, but I think an institution like MD Anderson is so strong, it has such a tradition, that it will be able to withstand whatever these tweaks are and come back to functioning in a really good way, so I don't have any long-term concerns about it. If I were on faculty, obviously you'd talk about these things at the coffee pot and wonder where things are going, and I think it does signal to people you're trying to recruit, if you're in an area that involves the academic mission, how important your role is perceived by the leadership.

[01:40:41]

T. A. Rosolowski, PhD

[01:40:43]

Is there anything else you'd like to add?

[01:40:44]

Raymond DuBois, MD, PhD

[01:40:46]

Well, you know, thanks for doing this. I think it's been interesting for me to sort of relive some of these things and talk about them. But you know, everybody thinks that when you're in an academic career, that somehow the institution owes you something or should do something for you, and I think a lot of people sort of misperceive that that is not the way the institution usually thinks. The institution as a whole is an entity that doesn't always take what you perceive as the number one mission for the thing. So I think what happens to some faculty is they just assume

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the institution is going to do whatever is in their best interest. That just doesn't always happen and you can't take that personally because that will just make you a very unhappy person and unproductive person. You have to just go on with your career and continue, but I think that's one of the common issues, is this misperception by some of the faculty that the institution is there to sort of serve them in some way.

[01:42:04]

T. A. Rosolowski, PhD

[01:42:06]

It's a macro entity. [laughter]

[01:42:07]

Raymond DuBois, MD, PhD

[01:42:09]

It's an organism that has its own course and life, and it's led by boards and presidents and stuff like that, that have a lot of other things they're worried about dealing with.

[01:42:25]

T. A. Rosolowski, PhD

[01:42:26]

Right, yeah. That's a comment people have made, that every time they've gone up a level, been promoted, they basically see an entirely different institution.

[01:42:34]

Raymond DuBois, MD, PhD

[01:42:34]

Right.

[01:42:35]

T. A. Rosolowski, PhD

[01:42:35]

Yeah, it is a macro thing. Well it's really been a pleasure talking to you.

[01:42:40]

Raymond DuBois, MD, PhD

[01:42:40]

Yeah. Thanks for doing it, thanks for coming all the way to Charleston.

[01:42:43]

T. A. Rosolowski, PhD

[01:42:43]

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Oh gosh, well.

[01:42:44]

Raymond DuBois, MD, PhD

[01:42:44]

We finally got some sunshine today.

[01:42:45]

T. A. Rosolowski, PhD

[01:42:45]

I did get—look at this, it's all clear, yes it cleared up. No, it's been really great. I wanted to make sure you had an opportunity to say everything you wanted to say while the recorder is on, so if there's anything else.

[01:42:57]

Raymond DuBois, MD, PhD

[01:42:57]

Well, you know again, I really had a great experience at MD Anderson. It's a wonderful institution, it still is a wonderful institution, and great, really dedicated people there that they're so blessed to have, and hopefully they'll just continue and be successful. I really am an optimistic person. I like to try to energize with optimism, instead of like the glass is half empty. It's important to have a positive attitude as you go through all aspects of your career. You know, I've had some great experiences. It was unfortunate I wasn't chosen as the president of MD Anderson, but I got to run this really fun Biodesign Institute in Arizona, and meet a whole new set of people and get involved in structural biology and physics and engineering, that was just a tremendous amount of fun. Now, I'm back at an academic medical center and I really enjoy working with students and faculty, and trying to increase our level of productivity and reputation, and we also have unbelievably dedicated faculty here that have been here for a long time and really want to see the institution continue to grow and prosper.

[01:44:22]

T. A. Rosolowski, PhD

[01:44:23]

Well, it's been a pleasure hearing your story. [Ray laughs] No it has.

[01:44:26]

Raymond DuBois, MD, PhD

[01:44:27]

Great.

[01:44:27]

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T. A. Rosolowski, PhD

[01:44:27]

You had a big grin on your face when you were talking about Biodesign, so it sounds like it was a great sabbatical.

[01:44:31]

Raymond DuBois, MD, PhD

[01:44:32]

Oh, it was my sabbatical basically and it was fun.

[01:44:36]

T. A. Rosolowski, PhD

[01:44:37]

Yeah, yeah, very much fun, very much fun. Well thanks again so much.

[01:44:39]

Raymond DuBois, MD, PhD

[01:44:40]

You're welcome and safe travels.

[01:44:41]

T. A. Rosolowski, PhD

[01:44:41]

Thank you. And for the record, I'm saying I'm turning off the recorder at ten minutes of nine.

[01:44:47]