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**Geoff:** Hello and welcome to "Taking The Lead," a podcast from the Radiology Leadership Institute that profiles radiologists as leaders, seeking insight and inspiration from a variety of perspectives and experiences. I'm Geoff Rubin. Today, I am speaking with Theresa McLoud who has served as vice-chair of education and radiology residency director at the Massachusetts General Hospital for the past 23 years. She is the first woman to have been appointed to serve as a section chief in the department of radiology at the MGH and the first woman from that department to hold the rank of professor at Harvard University. A Boston native, Theresa received her bachelor of science degree from Boston College and her MD degree from McGill University in Montreal, where she also completed her residency in diagnostic radiology under the tutelage of the eminent thoracic radiologist, Robert Frazier, the founding president of the Fleischner Society. She went on to work with Richard Greenspan, another one of the eight founding members and past president of the Fleischner Society, completing a chest radiology fellowship and serving as an assistant professor at the Yale University School of Medicine.

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After two years at Yale, she moved to MGH where she has been a member of the radiology faculty for 44 years, serving as chief for the section of thoracic, and later thoracic and cardiac radiology for 19 years before beginning her current 23-year run as vice-chair for education and director of the diagnostic radiology residency. She has blazed a trail as either the first or second woman to serve as president for a number of professional societies, including the Society of Thoracic Radiology, the Fleischner Society, the American Roentgen Ray Society, and the Radiological Society of North America, an internationally renowned expert in the imaging of lung disease, a dedicated educator, and one of the longest tenured residency directors in the country. Theresa's perspective on leadership within the field of radiology is unique, insightful, and always refreshing. Our goal in creating the "Taking The Lead" podcast is to support your leadership journey. And with that in mind, I'd like to tell you about a new sponsor, Carnegie Mellon University's Master of Medical Management program. Carnegie Mellon offers this degree exclusively to experienced physicians to build expertise in evidence-based management, business strategy, and technology for the future of healthcare leadership. We'll put a link on the page for this episode. Be sure to visit to learn more about Carnegie Mellon University's MMM program.

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[00:03:14]
Theresa, welcome.

Theresa: Thank you very much, Geoff. I'm really honored and delighted to participate.

Geoff: So, well, we'll get to your brief forays into other regions of New England and even the country to the North. Big picture is that you are a Bostonian born and bred. Can you tell us a little bit about what your life was like growing up in Boston?

Theresa: Yes. Well, I can talk about family and parents. Most of my family on my mother's side and, to a certain extent, on my father's side came from Ireland, one of the typical Boston Irish, and then there was Scottish heritage as well on my father's side. So, I grew up in one of the suburbs of Boston. I had one sister, and my father was a professor at Boston College. Actually, one more thing maybe in science, but that was not the case. He was a classics professor. And I suppose the question might be how I became interested in medicine and, I think, well, that was because of our family doctor. He was a friend of the family. He had been a classmate of my father's and I always tremendously admired him. And even as a child, I don't remember being particularly frightened about seeing the doctor because he was such a wonderful physician. And as I thought about it, as I progressed through school, I decided that I wanted to enter a career in medicine.

Geoff: Well, that's terrific. And when you were growing up, your sister, you mentioned, was she older or younger?

Theresa: She was four years older than I am. And she actually majored in mathematics and worked a lot in technical writing and the early days of computing, as well as a programmer. And that's basically her background.

Geoff: And what would you say might be an influence that you can call upon from your father's classics focus? Is there anything you think you took from that?
Theresa: That's interesting because certainly I went to Catholic schools and I actually learned the Latin. So, there was that classical background. How the connection came to medicine I'm not sure I can quite bridge that concept, but I think my family put a great deal of emphasis on education. My father, particularly, and I know maybe moving ahead too much in regard to your question, this is a little bit tangential, but my father was the person that was the most supportive of my desire to go into medicine. And for the audience listening, it was a time when there were very, very few women in medicine in the United States. So, that was rather unusual. So, I think my mother was more skeptical, but my father was very supportive.

Geoff: So, you mentioned your mother. Tell us a little bit about her. Did she work outside the home?

Theresa: No, she did not. She was a home keeper and really stayed at home and took care of the family and helped to bring us up.

Geoff: But you mentioned that she was perhaps a little skeptical about your interest in medicine. What did you think were her aspirations for you in those early days?

Theresa: Well, I don't even know that it was that specific. I think she really wanted me to have a good education and to go to college, but she, I think, was more concerned the skeptical about whether I could succeed since she thought the chances might be rather low given the number of women that are accepted into medical school at that time. She didn't discourage me. My father was very proactive and said he would support me and give me the financial support I needed to go to medical school.

Geoff: Terrific. Now, can you recall what was your first job when you were growing up? The first thing that you did outside of the home to earn a little bit of pocket change?
Theresa: Yeah. I did secretarial work, and I remember at that time most women's jobs were related to secretarial or, again, if you wanted to earn money in the summer for tuition or whatever, the men usually made a big salary doing construction work and repaving the roads in Boston area or whatever, but a woman couldn't do that, so I actually did secretarial work and I've learned how to type. I see some of the physicians of my age who grew up well before the computer generation and watch them struggling to touch dive, and I think that was actually one of the smartest decisions that I made, was learning how to do secretarial skills.

[00:07:48]
Geoff: Oh, that's great that those dividends pay off in somewhat ironic that as radiology progresses into a more and more digital era, those basic secretarial skills become more important for us.

[00:08:00]
Theresa: Absolutely.

[00:08:02]
Geoff: Any other lessons that you can recall taking from any of those early jobs? Any particular interactions or vignettes when you were working as a secretary that helped form your approach to your roles today?

[00:08:19]
Theresa: Well, I think that's difficult to say and I haven't given a great deal of thought about it, but I think working in an office and being one of the "girls" that worked in the secretarial office, it was important, I think, for me to understand them and to learn their skills and to accept their advice, and I was only there for summer. But I remember when I left they gave me a little gift and so forth. So, I think it was probably social training too, how to interact with people that may have very different backgrounds from you and to appreciate the jobs they do and the importance of them. And, I think it was very educational for me.

[00:09:03]
Geoff: That's a great point. What do you recall being your first experience as a leader?

[00:09:09]
Theresa: Well, that's rather interesting because I know that your interest in what the background was and what I did in leadership, and you may find this very hard to believe and those in the audience that may be listening to this
podcast may find it very difficult to believe as well. But as a child, I was really very shy. I tended to just stay in the background and I really didn't accept that many leadership positions when I was in grad school or high school, and I think that changed. You know, especially when I left Boston, I was independent and on my own and went to medical school. I admired people who are leaders, and I became like the secretary, one of the officers in my class in medical school. And so, I suppose it was then when I became more independent and self-sufficient that I became interested in leadership.

[00:09:57]
**Geoff:** That's interesting. That's a big step to become one of the officers in your medical school class. When you had, as you say, stayed toward the background for a number of years. Beyond simply being somewhere else, were there any other reasons that you can recall that led you to want to put yourself out there and to take on that position of being an officer or even running in an election to become an officer?

[00:10:29]
**Theresa:** Well, I hadn't given this much thought, but I wanted to become more involved. Perhaps it's like anything else that's new in your life and that you aspire to. I wanted to assume a position of leadership, and it wasn't a great deal of, oh, should I say, work that was critical that was needed in that position, but there was certainly certain tasks that have to be done in getting the group together to participate and so forth. So, I think I wanted to test that experience and see if I could develop the skills that were needed to become a leader. At least that was in the back of my mind. I didn't really have a long-term plan at that time, certainly.

[00:11:08]
**Geoff:** Sure. Now, do you recall any particular activities or events that occurred while you were serving as an officer in your medical school class that gave you confidence in future leadership opportunities or really gave you the sense that this was a calling for you?

[00:11:31]
**Theresa:** No. I don't think I had reached that level. That was really kind of practical experience that I wanted, organizing groups and getting people to do certain tasks that were necessary for the medical school class. So, I'm not sure it was an aspiration to become a leader at that time, but eventually, it evolved into those opportunities, I should say.
Geoff: Yeah. Excellent. After completing Boston College, by my reckoning, you left the City of Boston for 14 years before returning for good. Can you talk through your decision to leave Boston and Massachusetts in the U.S. to head to Montreal and McGill University for medical school internship and residency?

[00:12:10]
Theresa: Yes. Well, I can give you a little bit of a perspective on that. I'd like to emphasize there were so few women that were accepted into medical school at the time that I applied. I was accepted at a couple of medical schools in Boston. I wanted, however, I think, an opportunity to go away and McGill had an excellent reputation as a medical school and it seemed to draw a lot of Americans from the Northeastern part of the country and also from the Midwest, and not one of my classmates or an individual that I knew who had gone into medicine, who was a graduate of Boston College, had highly recommended that he had been accepted at McGill and he really enjoyed the training there. And I did the appropriate investigations about the school itself. I think it was a good choice because McGill, at that time, certainly has a blend of educational methodology and it had a great deal of British influence because it was in Canada, but also it had both the American and the Canadian style.

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So, I think it was perhaps a little bit different from other medical schools. And the other thing is, as I mentioned before, and I don't mean to be repetitive, I might sound angry about this, but Harvard at the time probably had three or four women on this class. McGill had 15 when I entered, so out a class of 125. So, the Canadians, as usual, more enlightened than the Americans. And I think that was a more of an opportunity also for me to get accepted into an excellent medical school. And I'll be honest, I was on the waiting list at Yale, but I didn't make it into the class.

[00:13:46]
Geoff: Well, it all worked out.

[00:13:48]
Theresa: Yeah.

[00:13:49]
Geoff: I'm curious, though, you've emphasized so few women entering medical school and being in medical school classes in those days. I imagine that this wasn't simply because they weren't applying, but that there were barriers to entry. What did you do that you can recall that you think was helpful in
allowing your candidacy to rise to the level of getting accepted to several medical schools at that point?

[00:14:20]
**Theresa:** I had done well in college and, in addition, I had some very good advice. So, he was a counselor who worked with those who were in pre-med at Boston College. He happened to be a Jesuit priest at the time, that he's spent a lot of time with me and helping me decide where to apply and where he thought that there would be a positive attitude to accepting women. And I took his advice because I really didn't have people in the family that had medical backgrounds and I think it was very good advice that he had given me. And it was some classic advice that I think everyone receive. You pick four or five schools and then, you know, people didn't apply to more than five or six schools. It's a little bit different now, but when you apply to perhaps the middle group of four or five schools where you think you had a very good chance or a good chance getting in, one insurance school and then you perhaps chose one, perhaps two that you hope you get into but you weren't sure. And that's basically what I did, and the strategy worked well.

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**Geoff:** Sure. How bout the decision to go into radiology? What were you considering and what led you into the field?

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**Theresa:** Well, I was initially interested in internal medicine, and I think usually mentors and role models are very important, and we had not a full rotation, but we certainly had an instruction of radiology. And again, it's often an individual who becomes a mentor that initially inspires you. And that was Bob Fraser. I mean he was such an absolutely wonderful teacher, loved what he did, was an inspiration, was highly respected in the hospital, in the institution. And so I took an elective when I was a fourth year student. The system was a little different than you really didn't have to decide on your specialty until your fourth year. And then I decided on radiology. And there were a number of people in my class that made that decision as well. So, I think there was a lot of discussion among my colleagues about radiology as a choice. Because I could never have really anticipated on what radiology would become and all the technological advantages of one, and how citing a field was going to be for me.

[00:16:45]
**Geoff:** And so after nine years of graduate education at McGill and postgraduate training, you headed to New Haven and Yale University. Tell us about that decision.
Theresa: Bob Fraser was a wonderful mentor and I told him that I wanted to do a fellowship and that I wanted to do it in thoracic radiology, and he understood that I might want to go elsewhere to train to broaden my horizons. And I had three or four choices and I decided I wanted to go to Yale, with Greenspan, and he helped to arrange that for me. Everything was done very informally in those days.

Geoff: And then you stayed at Yale for the fellowship and then two years more as an assistant professor and then you returned to Boston, to MGH for good. What brought you back to Boston?

Theresa: Well, there are a number of factors. Obviously it was home. I have family there. I won't say anything critical of New Haven, but Boston certainly was a better place to live. I think, though, not only the career opportunities but the family issues and being in a larger city, which I really enjoyed. I think there was a big contrast between living in Montreal and moving to New Haven. So, I'm sure, I don't mean to be disparaging about, but for a person like me, I think this was an opportunity both personally and, of course, professionally, the opportunity to be at the Massachusetts General Hospital, which was world-renowned, was an opportunity that I didn't really expect to have.

Geoff: How did that opportunity come about?

Theresa: Well, actually I believe that there was some telephone calls made. Dr. Greene, Reggie Greene was head of the thoracic division at that time and they needed another staff person and he knew of me. And I think he called some people at Yale as well, asked me if I would come and look up the position.

Geoff: Yeah, fantastic.

Theresa: The rest is history.
Geoff: The rest is history. Yeah. So, you land back at MGH in the department of radiology as an assistant professor in 1976. Paint us a picture of what the MGH department of radiology was like in 1976.

[00:19:07] Theresa: Well, first of all, it was sub-specialized. As I mentioned, Reggie Greene was head of the thoracic division, and there was abdominal imaging and neuroradiology, and there was kind of a general area which was sort of outpatient radiology. And, of course, this was all film-based back up that time, you know, so the volume of cases was less. And it's a very large hospital. There were many cases, a lot of opportunities to learn from, just the variety of disorders and pulmonary conditions that I saw when I was there. It was a much smaller department at that time, but there were a number of very dynamic people in the department that perhaps others would know at this time. But it was obviously a very nice place to work and a very exciting place to work and the clinical material is terrific. I think Mass General always had strengthened many specialties, so there was a depth of expertise, a depth of clinical material.

[00:20:20] They had an absolutely excellent thoracic surgical service, and, in addition to that, a very strong pulmonary service as well. And really a lot of the work in critical care. Initially, it was done with ARDS and so forth within the anesthesia department at MGH, so it had all the components really for a chest radiologist of having the depth of cases, the opportunities to see a large number of diseases, and perhaps Reggie a little bit was investing in new equipment, but that certainly improved over time as CT came into the picture and MRI eventually, etc. So, it was just a great place to work and a wonderful opportunity.

[00:21:05] Geoff: You mentioned that the department was smaller in those days. Do you recall how many faculty and residents approximately in 1976?

[00:21:14] Theresa: I think they were probably close to the same number of residents as we have now. Surprisingly, of course, we now have suffered IR residency, so maybe it's a little bit larger but not by very much. But there are certainly fewer radiologists. We have at the present time 100 radiologists that do clinical work. Now, they may be a part-time researcher, administrative responsibilities, and the research component was small at that time and probably I think there would have been a maximum of 35 to 40 radiologists, still a big department for 1976.
Geoff: Sure. Now, how many women were on the faculty?

[00:21:56] Theresa: I believe there were three women on the faculty at that time. One worked...actually two worked in that outpatient division. They were doing general radiology, and I believe I may have been the first one in one of the subspecialty divisions. I would have to check my facts on that. But certainly, I was one of the early ones.

[00:22:18] Geoff: And how was that experience for you coming in at that stage? As you say, one of the first, if not the first woman in a subspecialty division, what where your concerns? What issues did you need to navigate uniquely and what assistance did you receive in order to help establish yourself?

[00:22:42] Theresa: Well, I don't think the challenges were extreme. For people who haven't worked at Mass General Hospital, I was very impressed by the collegiality, the respect for people. It's a very nice place to work. And yet there were subtle things I suppose, you know, I'd maybe be in the reading room by myself and Dr. Greene or someone else wasn't there. And some clinician would come in, usually, you know, an assumed generalist, somebody who comes from there. They were off of somewhere in the hospital and they need a consultation on a chest radiograph, and I'd be the only one there. And they kind of look for a few seconds before they decide whether they would ask me on reviewing a case just because they either didn't know me. But I think a lot of it was just being a little bit startled at seeing a woman among all these men that were working there.

[00:23:38] But one thing I think that I found was trying to be excellent at what you do. And I remember a few incidents that really made a difference, a chief of thoracic surgery, Professor Hermes Grillo, had an international reputation for doing tracheal surgery. He was a pioneer in that area. He was a really a gentleman and I remember he brought me a case, and this was back in the days of plain films and tomogram, no CT. And it was a patient that had what I think we now know as one of the pericardial recesses that can be around the inferior pulmonary vein on the right side. And it was a little prominent, and I didn't know exactly what it was before, but I wondered if it was a varix of the pulmonary vein, but I told them, I had seen it before and I had seen it a couple of times that it was either maybe a varix or a little dilatation there and it wasn't anything yet to operate.
And he had booked the patient the next day for surgery to remove this mass. And he remembered that and he said, "Thank you, you saved me from operating on this young woman who didn't need surgery." And I said, "Well, you still need to follow or make sure it doesn't get bigger and so forth." Once people begin to trust you and realize that you had a level of expertise, and that's due to all the training I had, you know, I had two very prominent radiologists, Bob Fraser and Dr. Greenspan were very different in their approaches, but I learned so much. And I think that's the best advice to give women, too, is be really good at what you do and people are going to respect you. And I think that's the best thing, and you have to work hard to make sure that you have reached that level of competence. But it's extremely important.

Geoff: Yeah, that's great advice for both women and men.

Theresa: And men. Absolutely.

Geoff: How about in the residency class? How many women were residents at that point?

Theresa: Well, very few. There was, I think maybe one or two, at the most. And then there was some years that weren't any. And it's really interesting because there was this amazing year, well, I think we had...yeah, we were taking 10 residents at the time, so it was a total of 40 residents, and that must have been about, oh, that was in the late '70s, early '80s, and we had matched 5 women. I have to tell a few interesting anecdotes here, but Dwayne [SP] Shepherd, who I think, you know, she was in that group, and all of the women in that group were about the same height and the same weight and they all have sort of blondish brown hair. And one of the oncologists came into me and he said, "You know, Theresa, I'm very embarrassed because I don't want to make this mistake. But those women residents, they just all look the same to me." He didn't know who was... And I think it was the shock of having so many women residents and then realizing that it used to be only one. So, it was much easier somehow for people to remember names and distinguish them and so forth. So, those were the things that are kind of comical in a way, but I think they kind of illustrate what it's like to be one or only a few women in a very large male department.
Geoff: Absolutely. Now, after you had this windfall of five women matched into the class, were you off and running with a greater number of women every subsequent year or did you seek to engage in advocacy to try to have women ranked highly on the match list? Did you play a role in trying to enhance the women in the residency?

Theresa: Well, I would say I expected an interest and we had an education committee and I asked to be a member of that, and I think Jack Wardenburg was the program director. I thought it was very important to have one or two women on that committee, so we made major efforts to try to recruit women. We just certainly didn't have that repeat of half of the residency group being women that we had that year, but certainly each year there were more women or at least one or two women in the residency class.

Geoff: Yeah. Great. In 1982 you were named chief of thoracic radiology, and I understand that that was the very first appointment of a woman to a section chief role at MGH. How did that come about?

Theresa: Well, I was interested in assuming a leadership position and I think that was the point. Our chair was Dr. Taveras, and I spoke to him and I had been offered a couple of jobs elsewhere in the country, and I said, "I really want to stay at Mass General, but I'd really like to have a leadership position." And the opportunity came up because Dr. Greene took over what was then outpatient radiology. He decided he wanted to administer that, and so that opportunity came to me to move up, and Dr. Taveras offered me the position as the section chief for thoracic radiology.

Geoff: And how were you accepted as a young leader within the department and hospital as a whole?

Theresa: I don't think there was any problem. I really didn't sense that there was. No.
**Geoff:** Any steps that you took in particular to facilitate your acceptance or any missteps that you might recall?

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**Theresa:** Well, you know, I think I had been in the department for a number of years and certainly most of the clinicians have dealt with me and the people in the department knew me. And I was beginning to get involved as well in societies and I was getting to be known and I think because I...you know, it might've been more difficult if I was a new person to come to a section chief from elsewhere. But I think the department knew me and I think it's just wasn't that difficult to transition. I think people accepted them and congratulated me on it, and it was not that surprising, and then subsequently there were other women that became division chiefs.

[00:29:52]
**Geoff:** It sounds like it was a very supportive and forward-thinking environment. After 2 years as an assistant professor at Yale, and then another 4 additional years as assistant professor at MGH, and then associate professor for 13 years, you became the first woman from the MGH radiology department to be promoted to full professor at Harvard. That's a total of 19 years after your fellowship. Can you talk us through the process of becoming a full professor at Harvard? And did you feel that the 19 years that you spent as assistant or associate professor for your promotion was in line with others at MGH?

[00:30:32]
**Theresa:** Yes. I think that's the case. The Harvard system is rather unique and most people don't understand it very well. But being promoted to professor is usually a very long haul, especially if you're doing clinical research. Faculty are actually appointed as instructors. Now, in most medical universities, instructors are usually fellows, but that's not the case. And usually you can't even apply to become assistant professor until you are three years in the institution. So, that's why it's, you know, this little step off of grace there. And we all realize it's kind of a long haul to make a professorship. But Dr. Taveras and Dr. Thrall were both very supportive. Dr. Thrall took over at the time that I put in my papers and I was brought before the dean for me to become a full professor. Everyone was very supportive. And I was kind of known as well, more nationally, and at that point, even internationally. And so, I had a lot of very good support letters. And I think, hopefully, a robust CV. I think Harvard too was trying to encourage more women in the professorial level, but it wasn't going to compromise the standards. So for most people, it's a little bit of a long haul to make it to Harvard professor.
Geoff: Well, it is a tremendous accomplishment to have achieved particularly being a first as you were. Once you had achieved that accomplishment, did you look back to the other women or junior faculty in general within the department and seek to take on a mentoring or an advocacy role to help bring more of them along?

Theresa: Yes, I think there's a much more emphasis on mentoring now, but I would certainly meet with other women in the department. I had a variety of different goals. I think some were really interested in sort of making it up the academic ladder and others maybe not as much, you know. They were interested in the clinical work, but not so much interested in the scholarship or clinical research. So, I think everyone chooses their own career path, but I was always available to people to encourage them and to provide them with mentoring.

Geoff: You have touted the importance of mentors when advising young radiologists more recently. I'm curious, what was the role of mentors in your journey to becoming a full professor at Harvard?

Theresa: Well, I had quite a few mentors and it's interesting they were all men rather than women just because there weren't that many women that were in positions really of either authority or leadership of that time. First of all, Bob Fraser was a wonderful mentor and he was very encouraging and he was a very old-fashioned man in many ways. But he was very supportive of me and my aspirations for an academic career. The same for Dr. Taveras who was the chief of radiology at MGH when I took the position, and he would suggest certain things I would do. He was, you know, very supportive in my getting involved in different societies, and he thought that was important to develop leadership skills. And he would talk and he would give me sort of advice of how to build my career. And then when there was some of the other leaders in the department division heads, some radiologists that are very well known that asked me to either participate in societies or provided me with ideas about projects as I should undertake. So, it was a very supportive environment and I'm very grateful for that.

Geoff: You have been an avid contributor to professional societies, serving in a wide array of leadership and committee membership roles, including president
of the Society of Thoracic Radiology, the Fleischer Society, the Roentgen Ray Society, and the RSNA. What stands out to you amongst all of those leadership positions? Are there any instances or occurrences that particularly stick with you?

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Theresa: First of all, my advice is that if your interest in leadership, really, I think the door is still open to women now. And I think what struck me when I became involved in both the American Roentgen Ray and eventually the RSNA was that those societies have made a commitment to recruiting more women, and I think that became obvious to me, and I think the support is there now. One realizes that there is something that you want to do, that there's a time commitment for which you don't get paid. It's all volunteer work. But my feeling was that I could have, hopefully, a large impact by being a leader in one of those prestigious societies by helping to focus a radiologist's to attention on important issues, to provide well-developed educational program, to provide an outlet for people who wanted to present their research and so forth. So, it was a tremendous honor to be part of those societies. And you have a chance to meet people from all over the country and often international people, many of whom have wonderful ideas about radiology education, research topics, and I think you can help steer the whole profession on the whole specialty by getting involved with societies that really have a large membership and then come to meetings, and it's a way of disseminating, I think, very important new information to everyone that's in our specialty area.

[00:36:42]
Geoff: Are there any circumstances that you can recall that were particularly thorny ones for you, where you helped an organization through a particularly tough time or any instances of achievements that you led on behalf of the organization that you're particularly proud of?

[00:37:01]
Theresa: I won't mention the society's name. So, there was one of the societies that had a problem with their executive director. And I won't go into the details. Unfortunately, I was not the chairman of their board or the president at the time, but I think it was stressful for everyone that was on the executive committee of that organization, how to deal with that, how to maintain the reputation of the society. It was a challenge and it was very interesting because we came together and agreed on what we needed to do in the proper way to do it. So, I'm sure many organizations go through difficulties like this and it's an experience you don't want to have, but it's important when you work with people that can come together and arrive at a good solution. And I think with RSNA, on your sixth
year you become chair of the board of directors and, usually, everyone has a particular agenda that they would like to promote or some sort of project that they would like the RSNA to do.

And I have been impressed with the fact that the society was changing and many of the leadership really felt that RSNA was an American organization, which it is, and needed to give the correct amount of attention to its American constituency. But on the other hand, at that time, if one looked at the scientific program, more and more of the abstracts, in some cases, in some areas and subspecialties is many years, 40% to 50% of the abstracts were coming from international societies and international members are presenters and so forth. So, RSNA, at that time, had become really an international society. So my agenda, my focus for that year that I was chair of the board was international outreach and I was still allowed to just see a few years later that one of the liaisons in the board, one of these five members, each as a designation, one is education and so forth. I and others see annual meetings, but they added an additional assignment, which is someone would be in charge of international relations for the RSNA. I smiled because the first person to do that was Umar Mahmood, who was in my department, who was appointed to the board of directors of RSNA. So, I think that was my mission. I think we made some major strides and an international outreach, which reflected really our constituency, the people that came to the meeting, the people that presented abstracts, an increasing international membership as well.

Geoff: That is a great legacy, and I recall that in some way, I may have been a beneficiary of your international interest because I and Jonathan Golden accompanied you in the RSNA teamed AmeriCash for the International Society of Radiology right here, which was a phenomenal experience. And speaking further about the international relationship in societies, I can't help but think about the World Congress of Thoracic Imaging, which brings five international societies together from one of three continents for a meeting. And since the first World Congress in 2004, there had been a total of four World Congresses. And I believe that you have served as the program committee chair for all four World Congresses. Why do you think that over a 15-year span, the international community consistently turns to you for this leadership?

Theresa: Oh, well, that's a difficult question to answer. Maybe I'm just good at organizing and telling people what to do. I don't know. Anyway. You know, I think it was knowing and having a lot of the international connections was
important. And we had the first meetings, or first three, I believe, in Europe and then we had a meeting in Korea, and there was concerns about having it in the United States simply because it's more expensive. And usually, venues that are chosen are not hotels. In Europe, they usually have a convention center, and in the U.S. sometimes you have to have it at a hotel and the expenses are different. Well, I don't one to get into that. So, I was the president for the last one, which was held in Boston. Thank God it turned out to be an excellent success. We had a lot of international trainees, but I think it's just that outreach and getting to know people in different countries, which I think is extremely important.

[00:41:32]
Geoff: Well, it's clearly emblematic of the respect that you carry worldwide and you are certainly a very modest person in describing and discussing your leadership. Let me ask you, though, further from the perspective of organizing a program that needs to satisfy at least five organizations from continents all over the globe, what qualities do you seek to emphasize in order to assure your effectiveness within this highly distributed leadership role when you're working with teams that are distributed across North America, Europe, and East Asian time zones? What strategies do you apply to help get things done where everybody feels engaged?

[00:42:16]
Theresa: Yes, that's a very good question. It's not always easy. And these meetings, we started planning probably three to four years before the meeting would occur and, of course, the leadership changes. The president of the society at the time the decision is made to hold such a congress in a certain city will not be in the leadership when the actual conference occurs. But I think the important thing is to give people real responsibility, you know, to form committees and to have people that really have a stake in making it a success. And, again, because I worked with the...done the program for so many years, I knew so many of the people and I knew who were the best people to work with, and they were the offices of these societies. Great deal was done by the people who are actually on the site where the meeting is held and you expect that you're going to have to do a lot of the work yourself, you and your committee. But you have to make sure that all the international people are involved and that you listen to their suggestions and let you encourage them to put their best people in the different offices you've set up, that are needed within the society to make the meeting happen and be successful.

[00:43:33]
Geoff: Yeah. You're emphasizing listening to everybody and encouraging is a great point, particularly when you consider the cultural variations amongst the leaders of the organizations that you're encountering. Some of the cultures probably need a little bit more encouraging to step forward and others may be less so.

[00:43:55]
Theresa: You're right.

[00:43:57]
Geoff: You step back from your thoracic imaging leadership position at MGH roundabout 1996 to become vice chair for education and director of the residency program, positions that you've held now for 23 years, and that in itself is an amazing run. You must really enjoy the position to be at it for so long. Clearly, you could fulfill a wide diversity of leadership positions within medicine. What is it about being a program director that hits the sweet spot for you?

[00:44:28]
Theresa: Yeah, well, part of it is our residents. I really love our residents. You know, I've always been interested in education and teaching, and that was in my family. You know, my father was a professor, I had an aunt who actually taught at a teacher's college many years ago, and a granddad, too, was a teacher and so forth. So, I think that's partly in my blood and I enjoy education. For a while I was both division chief and a head of education of the department that I decided to step down as division chief.

[00:45:00]
I still do 50% of my time is clinical and I do thoracic radiology. It is a large job and it's a challenging one. Some of it is, of course, bureaucratic because the regulations from ACGME become more complicated, more complex as far as both fell on resident training. But it is so stimulating to work with young people and we are fortunate in our department to recruit very wonderful and talented people and diverse people from sometimes from different countries and certainly from different backgrounds. And it's just a pleasure to be able to teach them and also to develop programs and enhance their educational experience while they're here as residents. And then, hopefully, since we are such an academic department, to at least provide the opportunities and the training that's necessary to carry on the academic mission of radiology. Some will go into private practice and that's not unexpected and, certainly, but hopefully, to be able to nurture really talented people to expand and to continue to make our field in radiology prosper.
[00:46:14] 
**Geoff:** Yes. When you reflect upon the resident curriculum and even the residency experience over your 23 years of leadership, what do you see as being some of the biggest changes over that time span?

[00:46:30] 
**Theresa:** No, I think first of all there's a lot of change in educational methodology. Yeah. I think the days when we simply want the lectures and we read textbooks, you know, that this over. The younger generation certainly changed information in a very different way and they want to learn in an interactive voice. I think there's been a lot of study about how adults learn, and it's different from the way the children learn, adults will want to make their own choices and they're much more interactive. So, we have tried different methodologies to make the learning experience more interactive. I think you're probably familiar with some of these techniques is the reverse classroom. For example, you give the residents a topic to read on the evening before your lecture and then you devote the lecture to cases and questions for them in the audience about the topic that they've reviewed the night before.

[00:47:27] 
So, that makes it much more interactive. Then there are all these programs that can be done with the internet and with your iPhone, such as poll everywhere. RSNA also has a program that you can use, and that's, you know, very good because every resident can get involved. You can show a case, you can discuss a little bit, and then pose multiple-choice questions to them, and then they can see how they've performed relative to the rest of the group. You know, because they usually use a chart or information that's available on the correct answer and how many people actually attained the correct answer. So, they enjoy that sort of educational approach. They want to be involved, they want it to be interactive. For their learning tools, they use many programs as, you know, on the internet and probably don't read textbooks very often.

[00:48:18] 
So, I think we all have to adjust our educational approach based on their habits. But I think it's an exciting time and I think they become more interactive and are, more important, into own learning. And just another comment I can make about education is that I think we've done what many institutions have done, and that is to expand the residents' horizons, to offer them other programs within the department that might suit their particular interests and their career goals. We have a global health program where our residents can go to a hospital in Orlando with faculty supervision and they have to teach and give lectures
there. We have other programs are being developed. One is sort of an educational curriculum for those who are interested actually in becoming educators themselves. So, we would create within their program the opportunity for lectures and methodology and so forth to learn how to teach if they're interested in pursuing a career in radiology, in education.

[00:49:22]
We have had not a long time but maybe for about two years a leadership track which they can join as well and they participate in administrative tasks and lectures and they can get to shadow and work with some of the administrative leaders both in the department and in the hospital. So, that's just to mention a few, but I think that's really the future of radiology.

[00:50:05]
**Geoff:** Yeah. That is a remarkable evolution and new program development that you've described. It sounds pretty clear that even though MGH is a program and a center with tremendous legacy that resting on tradition is not absolutely critical, that innovation enters the educational experience and curriculum readily.

[00:50:27]
**Theresa:** And to be honest, Geoff, some of these ideas have come from the residents themselves and I say, "That sounds terrific. Let's see what we could do to work on it." And just as we've learned and, you know, try to continue to just be receptive, even though sometimes it's like disruptive technology, you know, it means effort and you have to rethink how you're going to provide all the time for them to be educated as a radiologist, but to give them these opportunities that are beyond the scope of the specialty, but I think very important for the future of the specialty.

[00:51:01]
**Geoff:** Yeah, no doubt. And an important recipe for success that you just mentioned, which is listening to the residents, listening in whatever leadership role you're in, a bottom-up approach to idea formation to introducing innovation is so important as a leader to be open to those ideas. I recently read an article describing the MESH invention incubator at MGH.

[00:51:25]
**Theresa:** Yes.
Geoff: Would you mind briefly describing what is MESH and why it was created?

[00:51:30] Theresa: Well, this comes from one of our residents as well. I'm sometimes intimidated by the residents, they're just so smart. It's just amazing. But anyway, and I can't give you all the details, but what the program is is to introduce radiology residents to innovation and device development. That's what basically the MESH incubator is. And one of our residents, and there will be an article in the RSNA news about him, and I think he's doing a podcast with ACR as well on this program. And what he has done is set up a short course for the residents to introduce them to the concept of device developments and innovation. And they learn a lot about the business of that as well as the actual scientific techniques. You know, what is a startup company, and if you have something that you're inventing, how do you develop it if we do turn to for support and so forth.

[00:52:28] And then for those that are more interested, they can work on a specific project. For the residents to spend a week, I went to a couple of the sessions that were doing 3D printing and so forth, by the end of the week it was really kind of amazing to see them, the excitement they had and see how interested and how accomplished they could be in a short period of time. So, there will be some articles coming up and I think there are already are a couple of publications in JACR that remark about this and there will be more information coming out, I think, with the podcast that he'll be doing.

[00:53:03] Geoff: That's really exciting. I'm ready to sign up for the residency myself.


[00:53:09] Geoff: We focused on the curriculum a bit, but, you know, residency occurs in a time of a physician's life that's very active. People are often getting married, starting families, trying to juggle raising children and the stress of managing potentially debt from medical school and such. I'm curious the extent to which you also have seen evolution in the importance of support structures for the residents and the needs that you perceive residents have today versus when you started as director.
Theresa: Yeah, I think that's a very important item. I don't know how they manage all they do. Many of them, as you say, are starting families when they are residents, you know, they're very busy. And I think it has to be a strain, but they manage somehow to adequately and careful use of time and they usually have support from their significant other, or else from the wife and so forth, and that helps. But many of them are living away from parents. You know, we get residents from all over the country so they don't necessarily have the extended family support at the time that they're residents. We have a wellness committee on the residents. We formed a wellness committee and they come up with different projects or just entertainment or dinners or whatever that they can do together. And I think that's very good upgrades, a lot of social adhesion, and in addition, it provides help to them.

If they just want to talk to their peers about something, they have the opportunity to do that. Both I and we now have three associate program directors are always available to the residents, and sometimes I think it's hard to come to a program director, you have a personal problem or whatever, but we have both mentors on the faculty level and then the other associate program directors. So, if they want to speak to someone and they need advice or they're having personal problems and so forth. And then the hospital has a very good support system for residents who might be under undue distress or have emotional or other problems. And there's a psychiatrist in charge of that and he's done some very wonderful work with residents and other trainees that are having personal or social problems. So, I think there's a lot of backup there, but it always gives me a certain amount of concern because I know all the pressure they're under.

They seem to form very good social groups. Our residents, as I say, they come from different areas of the country. They're very diverse. Each class seems to be very supportive of each other, and they do a lot of things socially together, and I think that's very important. So, there is an individual who needs a little extra support. They can get it from their peers as well. And I think it's just important to encourage that sort of relationship among the residents. Something I don't want to tolerate is anyone who is a troublemaker or who is disruptive among fellow residents because that can be a very bad situation. But I admire them. I think it was a lot quieter when you and I were both residents.
**Geoff:** You know, yes, you just articulated, in addition to being an educator, serving as a residency program director is sort of a human resource job. Wherever year you're tasked with hiring 8 to 10 young physicians and quickly incorporating them into the departmental culture and assuring that they are effective members of a team. How does this aspect of the job influence how you rank candidates for the residency?

**Theresa:** Well, it's difficult. I think sometimes just in a series of interviews to understand or to have insight enough really to understand if an individual is unlikely to become a member of the team, and we certainly ask some probing questions and I think that's helpful. What we do when we recruit residents, they have a dinner the night before the interviews and only our residents can attend with the resident applicants, and that's very, very effective. I think they realize that the residents are happy. They enjoy the program, that there's a lot of team spirit, and I think the applicants get a sense at the end of the day this is a fit for them. You know, whether they really are going to blend in and they'll be happy with the people that are they are and so forth. And I think that's very good. I also get feedback from the residents of this.

**Geoff:** Are there any steps in particular that you take each year as a new group of residents come in, to help inculcate them to departmental culture and to try to encourage a really cohesive group?
Theresa: They're all assigned a buddy, and the buddy is a second-year resident, so they take them through orientation and so forth and they have a number of social gatherings. We have a whole orientation on that. I speak about the residency and so forth. And it seems to work sometimes. I think having it a little bit informal is better, but I think they realize what the culture of the residency is and what the support is. If they run into trouble and so forth, they know what to do and they know that my door is open and the other associate program directors are more than happy to help. So, I don't try to force any particular culture. I think they kind of work on their own, but they get example from the most senior residents, so how the department operates and how they can best assimilate and profit from the experience.

Geoff: Last year you published an editorial in "Academic Radiology" in response to a survey of the Association of Program Directors in Radiology. Would you share some of your thoughts on what you described as growing demands on program directors and the challenge of garnering the resources to meet those challenges?

Theresa: The ACGME has every good intent creating structure and regulations to benefit residencies, but with that has come a lot of bureaucracy, a tremendous amount of paperwork, and I think that there's a lot of burnout among program directors, especially in programs that perhaps don't have the resources for adequate support of the program director and associate program directors to share the responsibility, I think, that makes it a lot easier. But it's just difficult. There have been a lot of changes. Sometimes I think there's emphasis on maybe the right things, but you can't fit everything into the curriculum and it's just a challenge, I think. When I became program director, James Thrall said we need somebody that's well known in the department and has somewhat of a national reputation because, one, it will attract residents to the program and, two, they'll have some authority within the department.

And I saw this when I was a junior faculty, you know, there are a couple of residents, the tremendous researchers, but they were trying to serve two masters, you know. They were trying to learn the clinical radiology and then they were working all night in the lab while they weren't showing up for some of their clinical duties and so forth. So, since I had been there for so long, I could tell everyone... I'm not the type to say, tell everyone what to do. But I had a certain degree of authority that I could work things out of residents who were
in the conflicts with their research mentors versus their clinical mentors and their duties as residents. And I think that was very wise for Jim to do that, to make the program director and the vice chair for education have a certain amount of cloak. Because what I see is a log, if you look at the APDR, a lot of turnover of program directors, I do have three or four years and they quit. And they're usually junior people, and they can get a lot of pushback, I think, from other members of the department that have their own agenda. And I think it's just difficult for that individual to comply with all the requirements and the regulations and to maintain, you know, a very productive and happy residency experience.

[01:03:12]
Geoff: Yeah. Terrific. Are there any other issues that you see facing diagnostic radiology training programs that you think are particularly critical issues to attend to over the course of the next coming years?

[01:03:30]
Theresa: Well, I think the introduction of the two residencies, interventional radiology and diagnostic radiology has been a bit of a challenge. And some of it is simply because it's a new structure. And when you create something like that, there are always some unintended consequences, and most of them are just bureaucratic and can be managed. But I don't know whether you're aware of the fact that interventional radiology is now the most competitive residency in the country, including, and I'm not just referring to radiology obviously, but to all the specialties. So, it's a pediatric surgery and so forth. One of the reasons it's so competitive is there aren't that many programs that are offering the IR residency. And the other issue is that law, a lot of applicants apply to both diagnostic and the IR program because it's possible at the end of three years, if they're in diagnostic radiology, they might be able to switch into the IR program.

[01:04:31]
And that presents issues of how do you distribute residents if you rank people high that, you know, eventually going in IR is diagnostic radiology going to suffer because we won't be training enough people. And the other issue, I think, from the resident's point of view is that there are programs that have excellent IR training, but the diagnostic radiology program may not be as strong. And maybe there are a few of that have strong DR and IR. So, I think this will all settle out all the time, but I think it certainly wasn't the original intent of the vascular radiologists. They simply want to create a structure that would permit two years of training in IR. And that's what's really necessary. I think that's required. But creating a separate residency with a DR component has just made
life complicated for everyone. I'm sure, again, we'll work out solutions and things will be fine, but I think that's a challenge for everyone at the moment.

[01:05:37]
**Geoff:** I found a set of slides from a presentation that you gave at the Association for University Radiologists about 10 years ago on career killers and helpers. The killers are the ones that I found really intriguing, and they included doing too much, publishing in the wrong venue, not presenting its CME courses or national meetings, and one of my personal favorites, the instant fame phenomenon. Do you think that these issues apply equally today as they did 10 years ago?

[01:06:10]
**Theresa:** Well, to a certain degree, and I've seen a couple of young radiologists that have developed something very specific in a field like take, for example, I'm not talking about any individual here, but say breast tomosynthesis. And they publish papers on, then they were invited everywhere to lecture it as something as a new technique and they focus on that. They don't have a huge CV, they've published in that area, and they are always going on trips and lecturing. And then, you know, after a while there will be some other new invention that will come along, and they waste some of their time that building up their academic career. And it's great. I mean, I'm the person that's most blind for loving to travel and it's just wonderful for your ego, and it isn't just an ego trip. Obviously, you want to teach a new object, educate people about a new technology or whatever, but you have to be careful in how much you do and put it in perspective, and always keep your goals in mind and what you eventually want to do. And hopefully, you'll move on to make an up of the academic ladder and not get sidetracked by something that, you know, seems to be very attractive at the moment.

[01:07:27]
**Geoff:** Yeah. Well said. I can definitely relate to that part of the journey. You know, with so many new channels for sharing information, particularly over the internet, via blogs, social media, or even podcasts, do you foresee a shift away from traditional journal publishing as a basis for academic career advancement?

[01:07:49]
**Theresa:** That's a good question. And, honestly, Geoff, I haven't really given very much thought to that. Certainly, there are a lot of online journals now. I mean, there's no question about that. But I haven't really thought that through. I think it's just an interesting question and maybe we will go in that direction. I think certainly a lot of journals are concerned about subscriptions, a lot of
people just subscribe online and that's fine. And maybe the paper journals are just going to completely disappear, and I wouldn't be surprised if that happens in the near future. But all of these modalities are going to affect academic careers as a question. I think that may be an example in education because, I think, for example, people who are developing new educational methodologies in medicine are maybe more likely to publish something online or to create a podcast rather than writing a scholarly article in a journal.

[01:08:50]
So, it's an interesting concept and we'll just have to see how it evolves. I remember the old days on my first papers I wrote and I went to something called "Index Medicus." Do you remember "Index Medicus," which I had a list of all these publications by topic and I go to a Harvard Medical School's Library and get all these references and we would copy them, and find the journal. And when you think of all the transformations that's occurred, obviously, in how we do our research and so forth because of all the technological developments, right, I think it's interesting to contemplate what the future will be. What's your opinion?

[01:09:34]
**Geoff:** Oh, my opinion. Well, I think it's fascinating. The diversity of communication channels, but also the diversity with which people are receiving the information to the extent that the information is available through multiple channels. I think people at different stages of their career and with different perspectives access information differently. I think we have to be cognizant of these variations and of these opportunities. A lot of people keep up to date on medical discovery and publications through Twitter, for example. And I personally have been fascinated by the conversations that occur out there. I think that social media provides a basis for conversation and discussion of publications that traditionally had been rather static presentations in medical journals. And I think it's fascinating. So, it's a new world and I agree completely with you that we'll see how things evolve.

[01:10:34]
**Theresa:** Okay, fair enough.

[01:10:35]
**Geoff:** Now, another career killer that you mentioned is accepting an administrative position before your time or without the resources to support it. How do you advise folks who yearn to lead but are early in their careers?
Theresa: This is something that an older person will say and they'll say the younger people want it all too quickly. You know, you have to bide your time and you have to do the groundwork. And I just think that sounds very patronizing, but I think probably this truth, and it was probably true, you know, and I was young and so forth. But it can be very enticing to have an administrative title and to realize that your chair trusts you and really like you to assume a new responsibility. But I think you always have to keep your career goals in mind. Maybe you do want to spend most of your time in administration and you're not necessarily going up the academic ladder. So, I think you'll have to make those choices. And I think what is wise is once you've reached the level of academia and your own field of choice and your own scholarly work in that field, you may want to change career and you may want to continue a little bit of the way I've done, you know, I wanted to continue to be a chest radiologist, but I wanted more administrative experience and I wanted to spend more time in education. So, I think it's an individual decision, but I think we all need to think carefully about what our ultimate career goal is, and really not assume our responsibility is just really going to interfere with reaching that goal.

Geoff: How do you advise young faculty or trainees who seem to be unaware of unproductive behaviors? Are there any tips or techniques that you've developed that you particularly like?

Theresa: Maybe you give me an example of what you mean by unproductive behaviors.

Geoff: Well, let's say, for example, that somebody seems to be spending their time doing things that you see are ultimately not going to help them to be successful in staying within the department or in moving up the ladder, even in terms of behaviors that might be problematic with respect to some of their colleagues. Are there any tips that you can offer through your experiences as to how you approach somebody for what could be a difficult conversation?

Theresa: Yeah. You know, fortunately, I've had some difficult conversations, but usually in my role as program director with the residents, and unless there's something proven that's absolutely egregious, you know, is that as a complaint, I usually ask, "I want to hear your side of the story first so," then we discuss it. So, they feel that, you know, you have confidence in them and that you're going to be fair. With people in the faculty, I haven't had too many instances. I've had
two or three with people who've come to me for advice and it can be very difficult because sometimes there's an issue where there's a degree of unfairness on both sides, but it may be some behavioral attitude on the part of the person that's complaining has led to a confrontation. And that's just very difficult, I think. I've really not had too many instances where there's been a major problem.

Sometimes someone will come to me because they're not getting along with the division chief. So, I just ask them what are the issues, what are the compromise that could be made, how can you solve the problem, etc., and give them advice about what I think they should do in a situation, whether I've been through such situations, somewhat like that. Sometimes it's difficult because people don't want to really listen and compromise. So, I think it's something that all of us face. And one more in leadership positions is mentoring other people and getting them to understand and be willing to compromise.

Geoff: Sure. Leadership can be stressful. Academic career is a very busy lifestyle. What sorts of things do you like to do to unwind and recharge?

Theresa: Oh, that's a good question. You know, there is some things that I really enjoy. I love music and I love to go to concerts and I'm a great opera lover. I actually subscribed to the Metropolitan Opera. I have a friend I go with, go to about six offers a year. I love to travel. You should probably know. I try not only to travel for business, but if I do or I'm giving a course, add some time on and explore something that I haven't seen before. And I'm an avid reader, you know, I really enjoy just curling up with a book and really getting involved as I'm distracted from all the other issues in my life for at least a period of time. And I love plays and movies and so forth. So, it's also some of the things I use to unwind.

Geoff: That's really rich. Any books, in particular, you've read recently that you really enjoyed or were particularly impactful?

Theresa: I was reading a biography and I didn't quite finish it on Catherine the Great. Very interesting, you know, the empress of Russia. And I love biographies that are historical because I like to read history, and I think certainly it's much more enjoyable if it's a story being told about a real person.
[01:16:16]
**Geoff:** And as an opera lover, what would you describe as the elements of opera that are really sort of nurturing and rewarding to you? What do you love about opera?

[01:16:29]
**Theresa:** I think opera has changed a lot. I remember going to opera when I was younger and, usually, the staging would be wonderful, the singers would be wonderful, and they just stood there and saying and there was a story going on, but there was really very little acting. And opera has changed so much. Many of the young opera singers, they're athletic. They can dance, they can act, and everything is so much richer. Obviously, there's some music, and around the music, there's song, but I think the drama and...you know, it's really, most operas are amazing production because you wonder how it's done between the different components that are involved. The orchestra, the singers, the music, the singers usually sing in a language that they're not familiar with. It's just an amazing production and I enjoy too much. And the more you go, I took a course to learn more about opera and I think as I've advised people to do that and then you can decide, "Well, this isn't for me or it's not something I enjoy," but it's true with anything else. The more you learn about it, the more you tend to enjoy it and to like it.

[01:17:43]
**Geoff:** Well, clearly it's a great passion of yours. Looking ahead, what excites you most about the field of radiology?

[01:17:52]
**Theresa:** Well, I think there are a lot of challenges. I've lived through an era where the technological advances have been, to use a colloquial term, absolutely amazing. I could never have predicted the future of radiology when I entered the field. I think there will be challenges in the future. I think everyone has some of those concerns about artificial intelligence. I think at least, in the short term, is going to be a tremendous help and advantage for us. I think we'll be able to do more work. I won't have to measure nodules anymore, for example, when I'm reading CTs of the chest and so forth. So, I think it will be of help to me. Well, the other is I think part of the challenges too, and I have to be in the whole context of where we're going with healthcare. You know, radiology is very expensive, equipment is very expensive. Will we see the degree of innovation in the next 20 years that we've seen in the past 30 years? I just don't know. And I think those are big challenges to healthcare in general.
So, I think that's something to think about in the context of what the future will be like.

[01:19:03]
**Geoff:** Theresa McLoud, I can't tell you how much I have enjoyed hearing you recount the scope of experience that you have acquired over your years of leadership, particularly at the Massachusetts General Hospital and in our national, international organizations. It's been such a pleasure and you are a great inspiration to generations of radiologists. Thank you so much for taking the time to talk to us today on "Taking The Lead."

[01:19:34]
**Theresa:** Oh, thank you very much, Geoff. And thank you for the questions you've asked. And you're obviously a master at these interviews. And I appreciate it very much and I've been delighted to participate.

[01:19:54]
**Geoff:** As we close this episode of the RLI's "Taking The Lead" podcast, I want to once again thank our new sponsor, Carnegie Mellon University's Master of Medical Management program offered exclusively to physicians. This professional degree from Carnegie Mellon builds expertise in evidence-based management, business strategy, and technology for the future of healthcare leadership. To learn more about the MMM program, please be sure to check out the link on the page for this episode. Please join me next month when I speak with Bruce Hillman, the founding editor-in-chief of the journal of the American College of Radiology and a pioneer of the Field of Health Services Research as Applied to Radiology. A native Miami, Florida, after graduating from Princeton in the University of Rochester School of Medicine, Bruce simultaneously completed radiology training in an NIH-sponsored clinical research fellowship in Boston at the Peter Bent Brigham Hospital. Immediately following fellowship, he was appointed section chief of genitourinary radiology at the University of Arizona where, in addition, to leading GU radiology, he produced groundbreaking work on the economics of referral patterns from medical imaging, payment reform, and the impact of imaging on health outcomes.

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After 14 years in Arizona, he relocated to the University of Virginia where he served as chairman of the department of radiology for 12 years. He was the founding principal investigator and chair of the National Cancer Institute Funded Clinical Trials Cooperative Group and the American College of
Radiology Imaging Network, or ACRIN, which has been a critical enabler of radiology's leadership in major clinical trials, including the National Lung Screening Trial. He served as the editor-in-chief of both investigative radiology and academic radiology before founding the JACR and serving as its editor-in-chief for 15 years. A president of 5 radiological societies, recipient of lifetime achievement awards from 6 radiology organizations, and author of over 400 published works, including 3 creative nonfiction books for laypeople to span topics from the discovery of AIDS to Albert Einstein, Bruce is a renaissance man as well as a wholly original and inspirational leader.

[01:22:18]
If you've enjoyed this podcast, I invite you to do three easy things. Subscribe to the series so you never miss an episode. Share the link so your peers can listen too, and like or rate every episode so more people will discover it. "Taking The Lead" is a production of the Radiology Leadership Institute and the American College of Radiology. Special thanks go to Anne Marie Pascoe, senior director of the RLI and co-producer of this podcast, Peg Helminski for production support, Linda Sowers for our marketing, Bryan Russell for technical support, and Shane Yoder for our theme music. Finally, thank you, our audience, for listening and for your interest in radiology leadership. I'm your host, Geoff Rubin from Duke University. We welcome your feedback, questions, and ideas for future conversations. You can reach me on Twitter @geoffrubin or the RLI @rli_acr. Alternatively, send us an email at rli@acr.org. I look forward to you joining me next time on "Taking The Lead."
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