

AdvanceRIT Podcast Series

Faculty Spotlight: Trailblazing Women at RIT

Season 1

Episode 1 - Dr. Lea Michel

Dr. Malar Hirudayaraj: Today we are excited to have Doctor Michelle with us. Doctor Leah Michel is a professor of the School of Chemistry and Material Sciences at the Rochester Institute of Technology and the director of diversity, equity and inclusion for the College of Science. She strives to increase the participation of women and underrepresented minorities, including those who are deaf and hard of hearing, in science and math. Through programs at RIT and the American Society for Biochemistry and Molecular Biology's Maximizing Access committee, Leah has mentored over 100 research students and has won awards for mentoring. She is also a finalist for the presidential awards for excellence in science, mathematics and engineering mentoring. Welcome to the podcast, Doctor Michelle.

Dr. Lea Michel: Thank you for having me.

Dr. Malar Hirudayaraj: Thank you for taking time to share your mission and accomplishments with us. So let us start with where it all began. Could you tell us about your background and what brought you to where you are here today?

Dr. Lea Michel: Yeah, so long, long ago. So I actually grew up here in Rochester, New York, and so I went to a university called Colgate University. It's about two and a half hours from here. And I was a physics major, a physics, math, actually, double major. And while I loved physics and math, like, I absolutely loved both of those things. I don't know, I think starting towards my senior year, I was very kind of late in figuring out what I wanted to do. But I think around my senior year I was like, you know, I do love definitely math. I learned it wasn't for me, but physics I really did love, but I said, you know, I'm missing something. I can't put my finger on it. Like I really don't know enough. But I knew I needed something else. So I studied abroad at Cardiff University in Wales for a semester, my spring semester, junior year. And the professor who was a neurobiologist, he brought us to, it was like twelve of us and he brought us to Wales. And so I got really close with him and he kind of was a great mentor and he was like, I just told him, I said, I don't know what I'm going to do next. I kind of want to put things off because I don't want to start real, real life yet. And I said, but physics isn't quite the right fit. And he said, you should look into biophysics. It's something, it's basically, you can use all the physics that you did in undergrad, but then apply it to biological systems he's like, it just might be more interesting to you. And I had no idea what it was. Literally, it was like one conversation, and I said, I'm gonna apply for PhD programs in biophysics. And I did, and I went and I led such little information about what biophysics really was. It was such a kind of a crapshoot. I got really, really lucky. And I remember my first year at grad school, I was like, oh, this is what biophysics is. This is good. I actually like this. And to me, being able to, like, see how physics is applied in biology and in health and in cells and in living systems, it was so much fun. So that's really kind of where I transitioned to biophysics, but I worked in a chemistry lab, a biochemistry lab, doing research. So kind of that's where that bio and biochemistry and biophysics have such great overlaps. They're very similar. So my classes were mostly biophysics and biochemistry, and then my research was biochemistry. And so, really, that's how I kind of ended up in a. In bio, in protein biochemistry, which is what I do now.

Dr. Malar Hirudayaraj: With all your physics, biophysics, math, chemistry, you know, it's a kind of a mix up, a lot of things. Where does your research rest at this point in time?

Dr. Lea Michel: So what I like to tell students is that it's that perfect for me, mix of biology, chemistry and physics. So I'm a protein biochemist, meaning that I work with Proteins. There's four biomolecules that biochemists study. Proteins, nucleic acids, which are DNA, and RNA carbohydrates, which are sugars and lipids, which are fats. Right? So those are the four biomolecules. Typically, if you're a biochemist, you study one of those four. So I

study proteins, which do all the functions in our cells. And so what I do is I study, as a biophysicist, I care about what those proteins look like at a molecular level where they are in the cell, how they display themselves in the cell, how they interact with other biomolecules in the cell, and then how that affects our health, how that affects disease, how that affects bacteria. So, like, I mostly study. So I say, you know, we're a protein biochemistry lab that studies proteins in disease. So we study things like cataracts, we study things like ear infections and sepsis, and it's like we. So. But we specifically kind of target in on proteins in those diseases.

Dr. Malar Hirudayaraj: Wonderful. So how do you see your research impacting the world or your specific field of study, your own personal research?

Dr. Lea Michel: So I would say that this is why I love my research so much, is because I really can see this kind of impact on the community and kind of science more broadly, because, and I think that's why my students find it exciting, too, right? It's like they can see how proteins can help with our health, right? I'll just give you one example, if you live to be long enough, you will definitely develop cataracts in your eye lens. And animals also get these pretty young. A lot of times this is because of, you know, eye damage from the sun and from other. And there's also genetic diseases as well, genetics, forms of cataracts. But in general, you're born with the proteins in your eye lens that you die with, so you don't regenerate them like most of the protein everywhere else in your body, you'll regenerate. You're constantly making new, but not crystalline. These are the proteins in your eye lens. And so what happens is, over time, because these proteins are very old, they age with you. And then these proteins, they stop doing what they're supposed to do, which is kind of interacting in such a way that your eye lines is completely clear. And all of a sudden, they'll start kind of clumping up together, right? They aggregate. And then when you have proteins that are not behaving normally and they're clumping together, you're going to get kind of a cloudiness, that cloudiness which is going to scatter light, and then that's how you get cataracts. So we want to understand, like, how do these proteins interact with each other? Why are they doing this over time and having this weird behavior? We can see how this is important for everyday life and for health. We are like, we're asking a problem that's scientific and kind of basic science, but this can be applied to helping people. Right?

Dr. Malar Hirudayaraj: What are the challenges or kind of upcoming trends in your field?

Dr. Lea Michel: So, in my other research project, I studied these things called outer membrane vesicles. So basically, I want you to. So, okay, this is what I tell my students when they first start enjoying the lab. I say, okay, you know, how, have you ever had boba tea? Like boba? Yeah, it's like that kind of like the little spheres imagine those being released from bacteria. So they be called those extracellular vesicles and or outer membrane vesicles. And basically they're like little spheres that are, they're not alive, but they're pieces from the bacteria. So it's like the bacteria, like, let's say the bacteria wants to get rid of some garbage, like some proteins that are misfolded. It'll bleb out this little boba sphere and then it'll have those unfolded protein misfolded proteins in there and it gets rid of them. Or let's say the bacteria want to communicate and talk, quote unquote, talk with another bacteria. It'll send a little boba sphere to the, to the other bacteria. Or it wants to share some RNA or DNA because it wants to, it's like, oh, I developed this DNA that's going to protect me from getting, you know, getting killed by this antibiotic. I'm going to share this with you and it like, sends out that message. So these little spheres or extracellular vesicles help it do that. So we study, we study these. But what I'll say is the challenge, right? The challenge, one of the challenges with working with these is it's a relatively newer field. They are very small, but they're very abundant. And if we want to work with, and so kind of working in a field that's kind of relatively new but important, it's hard because you're kind of, you don't have a lot of things to go on. So it's a lot of stuff where we're just kind of making it up as we go along. A lot of times, my students, I'm like, oh, I don't really know. I have never read a paper that talked about this, right? That talked about how to quantify proteins in this, in this EV, I'm like, let's work up. Let's try this. Or we can find one or two papers. That's it. So that's, I think, a challenge of working in a field that's so new. But it's really important because, because not only are these vesicles important for the bacteria to communicate with each other and for to

share things, but we can also use them. They're also, sorry, they also are toxic. They can contribute to inflammation. Right. So when you can, I like to think of them as little toxic bombs, too. So, like, let's say if you're bacteria and you're, and you're causing an infection in a human and you're going to get inundated with antibodies and white cell blood cells and other things that are trying to kill you. Right. What's one thing you can do? You can kind of shoot off these vesicles. They can act as decoys. They act as toxins. They cause inflammation. They're like, there's all these things that they do. So they're almost like, it's like little warfare that the bacteria are releasing. So we want to see how we can better understand these things. Why are they doing this? How are they doing this? What's inside of those vesicles? Right, again with the proteins. What are the proteins that we can see, and then how can we use them to help us better understand kind of pathologies and kind of progression of diseases, things like sepsis and in bacterial infections, diagnostics. How can we use them as diagnostic tools? So that's kind of what we want to do. So, like, we want to better understand these. And it's every day is kind of something new and a problem that.

Dr. Malar Hirudayaraj: Is that your next. That was my next question. What are your upcoming projects, or I.

Dr. Lea Michel: Yeah, so we're working. We're continuing to work on that, and really, so, really understanding. Okay, you get this infection, right? What happens to these EV's? What happens to these vesicles in the person? How long do they stay in a person's body? We think that they're so small that they can hide out in your tissue and almost cause, like, chronic inflammation, we think. Now, imagine all the bacteria that are in your gut right now. We all know we have a microbiome in our gut, right? That's keeping us healthy. What if those are releasing EV's too? Which they are. Guess what? They are. And so what happens to those? Are those also causing inflammation? With time, we think we get this thing called leaky gut. Bacteria could leak out of our gut. That just happens. What's happening with those EV's, right. How are those causing havoc? They're so little. Could they pass the blood brain barrier? Probably, yes, they are really little. So I think all of those things, we're kind of working on kind of better understanding EV's and structure and things like that, and continuing the cataracts project as well. Well as a new project that we're looking at vaccines for ear infections. So I won't get into that, but that's another thing that we're doing, again, with proteins, proteins from bacteria that we can put into a vaccine to protect us against the bacteria that cause things like ear infections.

Dr. Malar Hirudayaraj: So it's kind of all over the place, like, from health, to medicine, to eyes, ear infections.

Dr. Lea Michel: Yes. And I think what's great about it is I typically have a very big lab, right. I have like 20 something students. And what's great is that they kind of pick. I kind of, it's either they pick or I put them where I think it's going to be a good fit for them. Right. Based on their career interests, their background and all that kind of stuff. So they can kind of pick and choose. I've even had students switch projects, right. And so they can learn lots of different techniques. It's always good to have a lot of things going on because things are always not working. So you can always kind of switch and focus on something else. So we always have a lot of projects.

Dr. Malar Hirudayaraj: Wonderful. My next question to you was about your lab, your Michel lab.

Dr. Lea Michel: Yeah.

Dr. Malar Hirudayaraj: Tell us something about it.

Dr. Lea Michel: So the Michelle lab started in 2009 when I got here, and it started off pretty small, I'd say. I think I had like four students to start, maybe six. Then, you know, the next year, a few more. Now we're up to like an army of about 20 to 24 students a year, mostly biochemistry majors. But I have also, like, bio, biotech, biomed students, almost all undergrads. I share a PhD student who's amazing, and she is part time in my lab and part time in Tom Gaborsky's lab in biomedical engineering because that's the PhD program that she's part of. So she was on one of the vesicles that I talked about. She does that kind of work. But, yeah, so it's, what I found is when you have a giant lab, you have to kind of run it like an army. So I have, let's say four projects going on at the same time. I have project

leaders, either one or two, and I found lately that two is really helpful so that they can kind of help each other. So two project leaders per group that are in charge of everything. So these are people who have been in the lab at least one full time summer, if not two. They've been in the lab for a few years, and they know the ins and outs of the project, and they can kind of run it for me. So they schedule all the experiments for the week. They email me or text me almost every day with questions, with things. So I really only have to, I don't have to talk to 24 students. I only have to talk to the project leads. And that kind of helps enable me to have such a big lab. Cause I'm not communicating with all these people at once. I'm only communicating through the project leaders at group meetings. They're presenting their data, and they're kind of talking about the work for the. They're representing the group and then helping us plan for that.

Dr. Malar Hirudayaraj: And the project leads are still undergrad students.

Dr. Lea Michel: They're almost all still undergrads, but they're usually juniors or seniors. And then if. Or if I have a master's student or a PhD student, they'll.

Dr. Malar Hirudayaraj: So when do they actually get involved with your project? At what stage of their academic journey?

Dr. Lea Michel: So I'd say sophomore year. So first year is when I recruit them. They start their first year in my lab. They train. So they just start training on some of the basic skills. To me, it's about that comfort level. They want to, like, I think it's really scary to go from high school to, like, joining a biochemistry research lab. They don't know anything. And I tell them, it is important for you to know. You don't have to know anything. Everyone starts off being, like, sitting at group meeting and being, this is a different language, right? It's a whole different language. And so then they train with some of my, you know, the more senior students they train, they learn how to do things. They get comfortable in the lab. I always say, I'm like, there's like four or five experiments that I just need you to be comfortable with. Right. Growing back bacteria, purifying protein, you know, running a gel. And then sophomore year is when they get assigned a project, and so then they become part of that team. They have a project leader who's, like, communicating with them, you know, at least a few times a week, if not every day. They're coming in at different times to kind of, you know, start something, then pick up where it. Kind of where the other person couldn't finish and then pick up from there. And it's so kind of. It's like teamwork. It's like, it's. If we had one person all the time, instead we have, like, you know, seven people who kind of just come in when they can. When it fits in their schedule.

Dr. Malar Hirudayaraj: It means you have to kind of. Or they have to get trained on all phases of a particular asset.

Dr. Lea Michel: Yes. So they have to start anywhere and start anyway. And like, oh, oh, I need a gel run today. Oh, okay, I can do that. Oh, I'm working on this column, but I can't finish it because I got to run to class. Oh, then they can text each other and then, oh, I'll come in and I'll finish the column for you. Right. So it's like that kind of teamwork that seems to have worked out pretty well. Yeah. Undergrad schedules are no joke. They are very chaotic.

Dr. Malar Hirudayaraj: How did you kind of evolve this system?

Dr. Lea Michel: Oh, it's. Yeah. So I've been here. It's my lab. This is the 16th year, and it's definitely taken time. It did not start off that way. You know, I was in the lab every day working with my students, training them, and, you know, I was much more hands on. Now I'm never in the lab anymore, and so it just took time in figuring out, I think, to me, one of the things, like, you know, specifically, I really want to recruit deaf and hard of hearing students to the lab. We have so many amazing, you know, deaf students at RIT and specifically in science majors, so. But I, at the beginning, I would say, oh, you know, I had one deaf student, and it could be sometimes a little isolating. When you have a marginalized identity and you're the only one in a class or in the lab or in the room, it can feel very isolating and lonely. So I said, you know, if I'm going to take students, I can't take one. Right. So I need to have. So to me, it felt like the bigger the lab, the more students I could take, the more, the easier it is to get diversity without people feeling like they're token. Right? Tokenized or isolated. So that's kind of how it developed over time. I was like, you know, I really love this,

and I love the feeling of, you know, not forcing diversity. It's just, you take enough students, you're going to get all different kinds of diversity. And then everything worked better. So I noticed that I got, I was just more productive. I had more students, just lots of diverse perspectives. Science was better, the lab ran better, and they had better ideas, and things moved more smoothly. So I feel like with, every year, it just got better and better with more and more students. And so you learn. It's intimidating for people to understand that. Yeah, you have to take all these students, and sometimes I forget their names and where they're from, but. So there's definitely negatives, but there's benefits, too. The science goes better, the experiments run better, they have better ideas and more different ideas for when troubleshooting. And let's be honest, in research, it's like 80% troubleshooting. So that's how it's kind of evolved.

Dr. Malar Hirudayaraj: Over time, and it also allows everybody to understand how to work with people who don't think like me, are not like me, look like me, whatever.

Dr. Lea Michel: Yeah, yeah, for sure. And be a person who's listening to a more senior person and not being the leader. Right. But then eventually becoming the leader. So they get that teamwork, the leadership experiences, they kind of get the gamut, especially if you start first year and then you stay with me most, I would say the majority of my students stay with me for the full four years that they're here at RIT. So then they get all the gamut of those experiences, which I think those soft skills are really just as beneficial as the technical skills that they're getting in the lab.

Dr. Malar Hirudayaraj: So what are your goals for the lab? Like, what would you be satisfied with or have you excited about?

Dr. Lea Michel: I need more money, grants, so grant, constantly trying to like, okay, I need more grants. I'm applying for grants and getting more grant money because with a big lab, we burn through supplies. Biochemistry is a very expensive, I picked up very expensive kind of field to go into, just the supplies and the stuff is expensive, so being able to keep it funded and so that we can continue, really, my goals are always the same. Right. It's not about always. I mean, I do need. I know I need to publish. I do publish, but it's about the students getting those really great experiences. My students success has become my successes. So, like, they get into grad school, right? They get into PhD program or med school or whatever it is. Like, those are the successes that I. That's what I kind of. That's my goal is to get them to where they need to be and that for all the students to kind of feel welcome. You know, this is. It's easy to say, I want a lab that's always going to be inclusive and welcoming, but it's easy to say harder in practice. And so I found that something that I constantly need to work on and nurture or else you can't just let it go. You can't just say, oh, this is going to happen automatically because I say so. You've got to do things and you.

Dr. Malar Hirudayaraj: Have to be intentional.

Dr. Lea Michel: So intentional and accept that you're going to mess up, except that there's going to be things because you can't control every student, so there are things that are going to happen and you have to make sure that you're constantly kind of on that. It's like it becomes part of the work, right. It becomes part of the work of running the lab is to making sure that people are not, you know, feeling good and welcome and kind of that sense of belonging.

Dr. Malar Hirudayaraj: So you seem to enjoy mentoring students, and I know you have won many awards for mentoring as well. Could you share an experience that you think is memorable, you know, a happy mentoring experience or also any challenges specific, you know, learning experiences?

Dr. Lea Michel: You know, obviously, you know, you. When my students are successful, I, it's like, it's just like when my kids do something amazing or, like, earn an award or accomplish something, like, I feel so proud I didn't do. Like, I had a part of it even though I wasn't directly involved. It's the same thing with my students. Like, I feel like when they, you know, win that first scholarship, they get into this really competitive summer research program at, you know, Harvard or MIT, and they do get, they achieve something that they really, really, really wanted and they worked really hard for. It's like, I feel like I get that feeling of such. Being so proud of. I feel successful because they're successful. So I think

that, for me, is, like, the best part of mentoring and the most kind of, when I, when I, you know, if I had to measure the success for mentoring, that's what it would be. It's, it's those things. But I also think, you know, you know, there's also little mini, mini things that happen, like, you know, the small things, like, you know, students realizing that research isn't for me or I just get a student to graduate. Right. It's like, they don't, like, it's just like, you know, maybe they come from and seeing that growth, I think so they, they kind of all start off at different spots. Seeing that growth, I think, is really important because you can, you can come in as a superstar and then leave as a superstar, and I'm really happy for you. But then you could also come in as a hot mess because of whatever it is, whatever the reasons, and then leave a superstar, and then you're like, wow, that was awesome. That felt really good to be part.

Dr. Malar Hirudayaraj: Do you remember any student like that?

Dr. Lea Michel: Oh, I've had a lot of students like that. I think, you know, who, they just couldn't get it. They just didn't get it. I think it's usually just, they don't have that confidence. They haven't developed the confidence or the sense of belonging because also, because a lot of times it's their high school, they didn't have the preparation, so they're thrown into these classes, they had no study skills because they were probably, like, just super smart in high school, but. And got really good grades without trying. And now they're thrown in, and they don't have the skills that they need that they didn't develop them, and so they kind of falter, and then their confidence is bad. And so then they go even further, deep into the negatives. But then you're like, I've seen it so many times. Over and over again, something clicks. It varies. Students assume, but something clicks. And then all of a sudden, then they're like. Then they know. They figure it out. And so all that talent, which was already there, is just, like, they needed something. So, you know, Kara Mackey, she runs smash, right? So that's this summer math camp for middle schoolers. And I've seen it where we also. We hire undergrads to be the teachers. And so she and I have talked about this several times, where she'll pick kind of students who maybe, you know, sometimes these students, they're not. We don't necessarily. They don't need to be, like, straight A students, right. They just need to be excited about helping us with this. This summer camp and just that experience of being a teacher and being. And developing something on your own and, like. And working with a team, and it's like, all of a sudden, that's what helps it click. And then from then on, and then. I know I've had several students do that. And then from then on, they get, like, you know, all A's and B's graduate. Amazing. Go on to grad school. Like, it's like, how did that happen? And you. It's magic. You don't really. I don't understand how it is. I think it is a sense of belonging, competence thing, but you just figure it out.

Dr. Malar Hirudayaraj: Yeah.

Dr. Lea Michel: I love it.

Dr. Malar Hirudayaraj: Understanding your potential, right?

Dr. Lea Michel: Yes.

Dr. Malar Hirudayaraj: You are placed in a position where you have to realize. You get to realize your potential even without somebody telling you that you are good at something.

Dr. Lea Michel: That's not helpful. If you just tell them you're smart, you're amazing. I mean, obviously, they love to hear that, and we should be saying that, but it's. That. It's just that it's something that you can't explain that experience. Then all of a sudden, they've got it, and then I see it happen time and time again, you know, whether it's through smash or through. You know, maybe they go to a conference, and then from then on, it's like. Or they. They get to be a learning assistant and, like, that experience. Right. So whatever it is or they study abroad, it's like that kind of turning point, and then they do it.

Dr. Malar Hirudayaraj: Any kind of learning experience, anything that you think, okay, have learned from this experience, and I am managing things better now.

Dr. Lea Michel: Yeah, well, I definitely can spot it in the students. You could see them struggling and, you know, you're like, I gotta work with them to figure out what their. What their thing is that they need to, like, to get that skyrocket at the end. So I think that it teaches professors kind of patience. So I think it's just. I think it's like. I also think that a lot of the stuff that I teach about inclusive practices for mentoring, it's one thing to read it in an article and

be like, oh, there's this thing called stereotype threat and sense of belonging is important. And there's all these other kind of preconceptions of students based on their identities that will affect their performance. You read that and you're like, okay. But then you actually see it happen. You're like, wow, this is real. This is actually real. Like, they will. They are experiencing this. And so then you see it and you're like, wow, okay, well, this is real. How do we fix it? And a lot of times, and, you know, you can. And then they become so successful right there. They graduate. They. They can do great things. It's just they needed that kind of switch.

Dr. Malar Hirudayaraj: This is a perfect segue to my question about your role as a director of diversity, inclusion and equity in your college.

Dr. Lea Michel: Yeah.

Dr. Malar Hirudayaraj: So what do you do? Like, how did you get roped into it? What is your role there?

Dr. Lea Michel: How did I get roped into it? So I was part of the inclusive excellence team. So there was a number of faculty and staff in college of science, some amazing colleagues, all, you know, scientists who we all worked together on this project funded by the Howard Hughes Medical Institute. So it was a million dollars over five years, kind of similar to like an advanced grant. Right. And the goal was to, you know, make your college more inclusive, set up things that are going to make, you know, for long lasting, long term transformation. So developing programs, developing, you know, clubs for students and other kinds of programmatic type things. So I was part of that. And so we did so a lot of. And it was funny because I had started doing things in diversity, in inclusion, but I just I hadn't had a lot of experience. I did women. I was the chair of women in science for seven years, which is why I kind of got involved in the inclusive excellence program, but then learned so much. I think we read a lot of books. Scott Franklin was the, and Dean and Newman were the leaders, and both of them kind of knew a lot and then also encouraged us to kind of learn along the way. And so we developed things like this, we have an inclusive practices faculty program where it's throughout the entire one academic year, and we have workshops on inclusive practices. How can we be more inclusive in the classroom and as a mentor, research mentor? And so, yeah, I learned kind of a lot of the literature and kind of learning about some of the basics, learning how to work with people and, like, talking, having difficult conversations, like, when you're talking about DEI, like diversity, equity and inclusion, it can be really difficult. And kind of people are very touchy and sensitive and defensive. And so that was a whole learning experience for me, figuring out, and I'm still not the best at it, but figuring out how do I work? How do we push people? Because you can't grow if you don't get pushed, but without pushing too hard that they become defensive and then shut down. So I also had to learn that kind of thing. To me, all those skills that I developed through that inclusive excellence program helped prepare me for being director of DEI. And so I'm kind of continuing a lot of that work. Our dean, Andre Hudson, internalized, basically, this is how we kind of, okay, inclusive excellence ended after five years, and we ran out of money. And is it just going to be dead? No. Well, Sophia Meggelakis is first. And then Andre were like, no, we have to internalize this if we want to keep this. And so Andres really made it a priority, so he hired me part time as director of DEI, and then Jackie Ludwig, who is the program manager for diversity equity inclusion for our college. And so shes full time. So shes a PhD biologist, but then she's like, she does all full time DEI work in our college. So she's got that. She's a scientist, so she has that perspective, but she does everything. I couldn't do my job without her because she's really the. She does, she's amazing, just knowledgeable, but then also just, like, amazing at getting things done. And so we push, we do tons of events, programming events at the different levels.

Dr. Malar Hirudayaraj: Kind of events. If I may ask.

Dr. Lea Michel: Sure, sure. So a lot of workshops, obviously educational things, but then just things like, we have a two identity groups for students. We have an LGBTQ+ group called Koslisk, and then we have CO Alana for our students of color. And so we help that we kind of are faculty mentors for them, helping enable them to do what they want to do as a student group. We've had other kinds of summer research groups, mentoring programs

through DEI. We have this really big event that we do every year called after RIT. It's a one day, full day retreat for graduating students where we bring in alumni and volunteers from the Rochester community, and we have a full day of just, like, soft skill workshops, career building workshops, networking workshop, like, basically anything that you can come up with, like, from finance 101, how to do your finances, to, you know, how to be, if you're an international student.

Dr.Malar Hirudayaraj: Is this for undergrad students or high school students?

Dr. Lea Michel: Undergrad. So undergrads who are graduating from RIT or graduate students who are currently or, like, will be soon graduating from RIT. So it's. It's in January, and so it's. It's. It's meant to kind of open the. Or I guess, expose some of those hidden. The hidden curriculum, which is what we call it. And we're like, okay, there's a lot of things that we kind of just know, or a lot of people just know because they grew up going to a fancy restaurant and knowing which fork to use, right? Or they grew up talking to grownups and learning how to network, because that's just how they. Or maybe it's just their personality, right? But not everyone grew up like that. And not. Or not everyone has the. Has those skills yet, and we don't learn them necessarily in the classroom. So how can we do. Yes, it's only one day, but it's kind of that real kind of a boot camp. Like, how do you do that? How do you do small talk? How do you interview? Let's. We teach them about interview skills, right? We teach them about negotiation. How do we. How do you work as a team? Like, there's all we have. Like, many, many, many workshops. We had one about how to. How to golf. Right? Oh, wine tasting. Wine tasting, right? Because I don't know the first thing about wine. And if you put me in front of wine and with some fancy people, and they're like, oh, look at these fruity legs. I'm like, what are you talking about? I don't even know the first thing and I would. I'm afraid to talk because I don't know what to say, and I don't want to sound silly. So to me, we can teach them. So it's a little bit less intimidating. Right.

Dr.Malar Hirudayaraj: Is this a day long workshop?

Dr. Lea Michel: Yes, it's one day long workshop. We bring in a lot of alum who are excited to come back and kind of give back to the. To the other students or. And then some amazing local Rochester people. And it actually stemmed from one of our faculty workshops that we gave called about nightlights. And basically, a faculty nightlight is someone who kind of shines the light on things that are unspoken or not taught. Right. It's like, okay, you want to get a promotion. This is the kind of things you need to do. Right. Or you want to get into grad school. Here's some of the secrets. Right. When you have a research student, I tell them that. But if you don't have somebody telling you, how are you supposed to learn that? And a lot of students, especially those from, like, disadvantaged backgrounds, like, they're not going to pick that up. Right. So how can we kind of even the playing field a little bit? Just give everyone that information?

Dr.Malar Hirudayaraj: You spoke about that there are many people who do, many students who do not have any kind of background.

Dr. Lea Michel: Right.

Dr.Malar Hirudayaraj: You know, family support. They are first generation.

Dr. Lea Michel: Oh, yeah.

Dr.Malar Hirudayaraj: How are they science or engineering, whatever. So how do they know? How do they have no idea about white collar work? They don't know what it looks like to be an engineer in a workplace place. They have all the technical skill set.

Dr. Lea Michel: Right.

Dr.Malar Hirudayaraj: But most of them would not even look you up in the eye and talk, so.

Dr. Lea Michel: Right.

Dr.Malar Hirudayaraj: So how do you get them to be able to have conversations with people?

Dr. Lea Michel: Yes.

Dr.Malar Hirudayaraj: Give them the confidence to walk up to people and start a conversation in a career fair.

Dr. Lea Michel: Exactly.

Dr. Lea Michel: It is those little things that get you promotion. That you get you the job or get you promotions. It's like those being able to be, like, to talk about something or like, you know, oh, we're all going to go to the bar after work, and that's where all the networking happens. Right. And if you don't know that or if you're just not exposed to that kind of thing, like, how would you know?

Dr. Malar Hirudayaraj: Yes.

Dr. Lea Michel: And so then you're missing out on all these opportunities.

Dr. Malar Hirudayaraj: Yeah.

Dr. Lea Michel: All right. This is awesome. Yeah, this is great.

Dr. Malar Hirudayaraj: Getting back to our project. So you seem to be doing a lot of things.

Dr. Lea Michel: Yeah.

Dr. Malar Hirudayaraj: How do you even balance life? And if there is one.

Dr. Lea Michel: I saw that question I knew was coming, I'm like, oh, man, this is. I do not balance. I don't. I would say that I struggle all the time with balancing it because I do take on too much sometimes. You know, I have two kids who are. They're not young young anymore. They're in 6th grade and 9th grade, and so, which makes life easier. But they were little. Oh, man, that was really hard. I just say, you know, especially for new parents, for example, like, nothing's going to ever be balanced. Things will be off balance all the time. But make sure when they're off balance that you're kind of toggling back and forth. So sometimes you need to spend more time on your family because they need you more. Right. And then work falls apart a little bit. And then sometimes you need to focus on work because that's really kind of becomes kind of overtakes things and your family will still be there for you. Right. And so you kind of, from even day to day, this can. This can change. And so the key is to just be okay with that and then to do anything you can to make it work. You have to prioritize. And so, yeah, I've never been great at the balance thing, but I've kind of gotten better over time and also just maybe just given myself, been like, all right, like, it's never going to be balanced. It'll just be off balance in an okay way that I'm okay with so I don't lose sleep over it.

Dr. Malar Hirudayaraj: Wonderful. Wonderful. Any last words of ideas, advice for students? Young professionals or young new faculty or aspiring faculty in your field.

Dr. Lea Michel: I would say for students, I would say that take advantage of all the opportunities that RIT has. I think we have so many. We're such a great university that has all these things going on can be a little bit overwhelming. But the more you take advantage of those opportunities and make yourself a well-rounded person, we talked about all the soft skills that you need to learn that's going to make you a better grown up. Right. Even. It could be like, you know, you're in a club, a gaming club, right. Or become vice president of that gaming club. Like, don't think that that's not important because that is that. Right. So it's all these opportunities, not just academic, that you're going to get at Rit. And then for new faculty, I would say, you know, we've all been through it. It doesn't even feel like it was that long ago. Right? Like, oh, my gosh, I know I've been here for 16 years, but, like, it feels like could be yesterday sometimes, so don't be, you know, we. We're here to help and support. We're on your side. I think sometimes we have this, like you said, siloed mentality where we're kind of like, oh, we're all kind of fighting for our own jobs almost. But no, we should be a team and we should help each other. And advance is here to help you. And there's other programs at RIT that are here to help you. The more we can work together and know that we're not all competing for the same spot up at the top. We're all just like, oh, let's all just do it together. We'll go up there together and that's going to be way better. So we're all here to help, especially new faculty.

Dr. Malar Hirudayaraj: Seek support. Ask for help.

Dr. Lea Michel: Yes.

Dr. Malar Hirudayaraj: Whatever you're going through, somebody in the audience, somebody in the group has already been there.

Dr. Lea Michel: Yes. Right.

Dr. Lea Michel: You see, I could not have gone through my first few years without some of the other, my colleagues who were just like, oh, here, do this, or here, like, they would literally handhold me through these certain things and processes and experiences. They're

like, oh, yeah, do this. You know? And they had such good advice, and if I didn't take it, like, that would have been. It could have changed my career. So, like, that. It can be career changing. Like, just getting that help and getting advice from people who have been through it.

Dr.Malar Hirudayaraj: Wonderful, wonderful. Thank you so much. Is there anything else that I.

Dr. Lea Michel: No, this is perfect. This is. I hope this was a good first. Yeah. Run of the podcast.

Dr.Malar Hirudayaraj: The reason I wanted to speak to you was because of this kind of. You bring multiple angles to it. It's not just research. We have amazing researchers. We have amazing teachers, people who do a lot of mentoring, but you bring a lot of things.

Dr. Lea Michel: Thank you. Yeah, thanks. I like all that kind of stuff. It's kind of. It's nice that we have the opportunity to kind of be different people and wear different hats because, you know, in some schools you don't. It's like, well, you better just wear that researcher hat or else you're not going to be here anymore. Like, I'm glad we're not at a school like that. We can actually do different things.

Dr.Malar Hirudayaraj: So. So thank you very much. Thank you for taking time to be with us today.

Dr. Lea Michel: Thanks. Thanks for having me.

Dr.Malar Hirudayaraj: Thank you, Lea. Bye bye.

Dr. Lea Michel: This was so fun.