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Speaker 2:

This is the ORISE Featurecast. Join host Michael Holtz for conversations with ORISE experts on STEM workforce development, scientific and technical reviews, and the evaluation of radiation exposure and environmental contamination. You'll also hear from ORISE research program participants and their mentors as they talk about their experiences and how they are helping shape the future of science. Welcome to the ORISE Featurecast.

Michael Holtz:

Welcome to the ORISE Featurecast. As ever, it's me your host, Michael Holtz in the communications in marketing department at the Oak Ridge Institute for Science and Education. And as I love to do on this podcast, I'm talking to a mentor today. We love talking to research participation program participants and mentors, and talk about all things science and how people got to where they were. And today is one of those conversations. My guest today is Alison Gerken, and Alison was a runner up for the 2024 ORISE Mentor Award. Congratulations, Alison, and welcome to the ORISE Featurecast.

Alison Gerken:

Yeah, thank you. It's great to be here.

Michael Holtz:

So glad to have you. So let's start with first question. Who is Alison and where are you serving as a mentor?

Alison Gerken:

Sure. So Alison is a research ecologist. So I've been a research ecologist with the USDA Agricultural Research Service for about three years. Before that, I was a post-doctoral researcher at the same research unit. So working with stored product insects, trying to figure out how to keep them out of our grain and grain-based products. So really, in the post-harvest agricultural sector. I'm based out of Manhattan, Kansas. So I did my graduate work at Kansas State University, went away for a post-doctoral research opportunity at the University of Florida, and then was fortunate enough to come back to Manhattan and settle down here, get my permanent position at the USDA ARS, and just settle in and start my research program.

Michael Holtz:

Awesome. Awesome, awesome. Have you always been interested in science?

Alison Gerken:

I don't remember when my passion for science really started. I think as a kid, I always wanted to be a teacher. My sister and I played school all the time growing up, and we forced my little brother to be the one student in the class. So I always had that passion for communicating knowledge and getting information out there. And then when I went to do my undergrad at the University of South Dakota, I really didn't know what I wanted to do. I thought I wanted to be pre-med because that's what all my high school classmates were doing. Then I got into research and I started research in a biology lab with insects, and it just opened this whole new world of asking questions and figuring out how to use the tools of biology and experimental design, to really ask questions about behavior and ecology, and just this whole fascinating world. So I really think it was that research experience in undergrad that really made me love science, and really opened my eyes to the opportunities that are within science itself.

Michael Holtz:

Awesome. And based on the research that you've talked about, ecology and our food, really important.

Alison Gerken:

Yeah, absolutely. I think as our populations keep growing, protecting what we've already invested in terms of the time in the field, and the time that farmers have spent growing it and harvesting and treating for pests in the field, protecting that investment is really critical for safe food for Americans and just the world.

Michael Holtz:

Gotcha. You were a runner up for the 2024 ORISE Mentor Award. First of all, congratulations again. But I want to flip the script and ask you to talk about your mentors.

Alison Gerken:

Yeah, so I was fortunate to have some really great mentors. I think the first one that I really took for granted was my first undergraduate mentor, and Dr. John Swallow at the University of South Dakota. He's out in Colorado now. He really let me just run with things within this kind of framework of we're asking this general question. And within that question, what can you come up with? I think the way he just approached just life in general, he was just really energetic and outgoing, but also very driven and focused. And I think that really set the stage for how I wanted to approach my scientific career.

And then going to my PhD, my advisor was really great. Ted Morgan, he supported me in these crazy ideas on understanding cold tolerance and insects and how that can affect survivorship, and how the interplay of the genetics work in there too. So I really had this great foundation of people allowing me to ask questions, and to just really explore within these boundaries. And they were really good at gently bringing me back to reality sometimes.

Because as a grad student, you can go too far and your project can be too large. And so I think that's definitely a skill that I've been practicing as a mentor myself. But it's something that I learned from them. It's like how to just refocus, bring the goals back into something more manageable. So those two in particular were really great. And then I had the opportunity to work with an insect physiologist as part of my PhD program, Dan Hahn. And he ... Again, his enthusiasm for science and just how he talked about the insects and how he thought about this whole big picture, it was just phenomenal. So those three set the foundation for how I wanted to approach science and how I wanted to approach the people that I was going to mentor. Giving that foundation to them and having the enthusiasm and the love for science.

Michael Holtz:

Awesome. So is that part of what you pass on to your mentees then, is trying to help build that foundation for them?

Alison Gerken:

Yeah, definitely. I think ... Yeah, I hope that I can give them that foundation, how to ask good questions, how to make a good experimental design. You can't just jump in and just start collecting data. You have to know where you're going with the data and what's the goal. And I think there's a lot of value in these little side projects, because you never know what's going to happen. But you still have to have some sort of structure to that. And I really hope that I give my students and postdocs the freedom to ask a lot of questions and to just spitball, brainstorm ideas. Because that really is where you're going to come up with the next big innovation, is just talking off the cuff. Not everything has to be worked out and perfect when you're just sitting around chatting. Once we get to the experimental part, you want to hash out some ideas. But just say what you are thinking. I think that's really a cool part about science, is we all come at it so differently. So I want to hear what you're thinking.

Michael Holtz:

And it sounds like based on what you're telling me about some of those just casual conversations or just spit balling ideas, collaboration is a big part of that. You have an idea, someone else weighs in and says, "Well, what if you think about X?" So science isn't one of those things that happens by yourself.

Alison Gerken:

Yeah, exactly. I value my collaborators so much because they bring something to the table that I'm missing, that I don't know a lot about. And so it might be way off base. Then they, again, can bring me back to reality and say, "Well, actually, we could do it more this way than that way." But yeah, I tell my postdocs, especially, "You're the expert in whatever we've brought you in to do. Inform me. Let's talk about it. Let's really work together and bring all of our expertise together." That's going to be what makes the best design and outcome essentially.

Michael Holtz:

Awesome. In getting to where you are in your career, have you faced barriers getting there or significant obstacles?

Alison Gerken:

Yeah, I think they come and they go. I think life is a roller coaster and just a complete balancing act. I think sometimes, you run into people whose attitudes are different than yours. And so you have to either learn to work with those people or learn to say, "No, it's not going to work out between us. Let's just move on." I think that's one of the biggest things I had to learn, was this opportunity might seem amazing and great, but it just is not a good fit. And learning that for me was my own biggest obstacle, I think. I think I've been very fortunate because I've had such great mentors that really, truly believed in me, that they've helped me overcome a lot of those barriers and obstacles that I've faced. So I think when you have this team, and again, this collaboration, where you can work together and share your frustrations, you can really push through a lot of those struggles together, and that really makes a huge difference.

Michael Holtz:

Awesome. On the flip side of that, talk about successes that you've seen.

Alison Gerken:

Yeah. Successes ... Yeah, I [inaudible 00:12:15]. A lot of good things pop into my head when I think about successes. I think every paper you get published, I think the more we get on in our careers, we forget what an accomplishment that is. Just to have that final project and product and put it out into the world. I think we forget how cool that is to share that with people. So I think-

Michael Holtz:

And we often move on to the next thing so quickly.

Alison Gerken:

Exactly.

Michael Holtz:

We don't stop to savor the moment.

Alison Gerken:

Yep. That's exactly right. In grad school, we'd go out and celebrate. We'd have a beer. "Oh, you got a publication." And now it's like, "Okay, what's the next thing?" So I think recently, I've taken a step back and really tried to savor those moments a little bit more. And I think getting an award, like a mentorship award, you're like, "Wow, what an accomplishment that is. Somebody recognized that in me." And so that's really cool. I think the first big grants that I've gotten, that's been a huge success. That's again, finding that team that you can work with and communicate with. Thinking about the future, I think that's really exciting, and getting those awarded. Then just thinking about how to innovate and be creative. That's been a big success recently.

Michael Holtz:

Awesome. Well, you talked a little bit about it, but tell me what it means to you to have received the ORISE Mentor Award.

Alison Gerken:

Yeah, it's just a big honor. When I got into the ORISE program, I was awarded a postdoctoral researcher with the SCINet, USDA SCINet program, and I really didn't know what that meant. So I've actually had an opportunity to mentor two postdocs through this program. And it's just been ... Just opened up new research avenues for me. It has brought these people into my life that, again, have this expertise that they can teach me so much, and then I can lend them my support and push them to do great things. And I think working together, we both recognize what each other needs. Having that constant communication is really important between any mentor and whoever your mentee is. So I think I've worked really hard to be a positive mentor and to show my support for my people. And I think getting that recognition has been a great honor, especially for such a huge program as ORISE is. There's a lot of people represented here. So I think that's been really cool.

Michael Holtz:

It sounds like ORISE in general means a lot to you, just in terms of how you've been able to get to where you are and the opportunities you've had.

Alison Gerken:

Yeah, definitely. I think having that support through ORISE and the SCINet program has just ... Yeah, it's opened up opportunities where I could not have devoted enough time to get these projects off the ground myself. So having that mentee come in, where I could provide the support and the knowledge and the base, and they can do the work and improve their CV and improve their publication record, it all just fits so nicely together.

Michael Holtz:

Awesome. Alison, is there anything you want to say that I have not asked you about?

Alison Gerken:

I don't think so. I think I've said a lot. This has been a really nice, great conversation.

Michael Holtz:

It has been really nice. I have one more question for you. What brings you joy, Alison?

Alison Gerken:

Oh. The first thing that popped in my head was my family. My family brings me an incredible amount of joy. I have two little boys, four and six. My husband is also a scientist. So talking about science with him and collaborating with him has been really fun. We spend a lot of time outside with our dogs and hiking and just enjoying the world around us. So that, I think that really brings me a lot of joy. And also, the people I work with. They're absolutely incredible. The amount of talent and skill and caring, dedication, I cannot speak enough great things about my coworkers, because it's incredibly tremendous to see what everyone around me is doing and to have that support. So I think I'm lucky because I do get that joy from at home and at work. What a gift that is.

Michael Holtz:

That's awesome. Talk about work-life balance, right?

Alison Gerken:

Exactly. Yeah, it's perfect.

Michael Holtz:

I love it. Well, Alison Gerken, thank you so much for spending this time with me. It's been a pleasure to get to know you and to talk about your award. But all that goes into that ... Because I know it's not just getting an award, it's about all of this stuff that goes into being a mentor and getting to where you are as a scientist. So I really appreciate your time today.

Alison Gerken:

Yeah, I really appreciate the opportunity. This has been really nice. Thank you.

Michael Holtz:

Thank you.

Speaker 2:

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