

Inspiring Women

Episode 4: Emily Blair

Laurie McGraw:

Welcome to Inspiring Women with Laurie McGraw. I am your host, Laurie McGraw. I have spent the past 30 years in leadership, and over the years I've come to learn one thing, women need women, and not just any women, but inspiring women. Tune in every week to hear from women at the pinnacle of their careers, and from others who are just starting out. Episodes can be found at InspiringWomen.show, or subscribe on your favorite podcast app. Thanks for listening, and I hope you will be inspired.

Laurie McGraw:

Welcome to another episode of Inspiring Women. Today we are speaking with a very inspiring young woman, Emily Blair. Emily is a 2016 graduate from Pepperdine University, a Biology graduate. She's done a tremendous amount of work in various cell biology, molecular biology labs. She's in her fifth year now at University California Riverside, where she's a PhD student. She's a fifth year PhD candidate. What Emily's trying to do, is she's trying to study how plants protect themselves from temperature extremes at both the genetic and the molecular level. That is, as we can all imagine, pretty important in these times of extreme climate change and weather patterns that I think we're all experiencing.

Laurie McGraw:

Long term, Emily says she wants to pursue a career where she can translate her knowledge of plant molecular biology between her fellow scientists and other executives to make excellent decisions about crop management. Emily, welcome to Inspiring Women.

Emily Blair:

Thank you for having me. I'm excited to chat with you today.

Laurie McGraw:

Great. Emily, let's get started. What I like to talk about with young women is you've been in school, you're still studying, you're working very hard, you're working in labs today. What are you doing right now? What are you focused on today?

Emily Blair:

I'm in my fifth year of my PhD program, like you mentioned. Essentially, I'm trying to wrap up experiments in the lab, and start writing up the data I have, and doing some data analysis. I'm hoping to graduate by the end of this year. I'm starting to look at job positions now. I think I've started to have a transition period where I'm not just thinking about my science 24/7, I'm also thinking about what's the next step for me.

Laurie McGraw:

Those are big decisions. Before we even get to where are you going next, let's talk about how you decided to focus on this very specific field of plant molecular biology. What got you interested in that?

Emily Blair:

My early work experiences as an undergraduate I think really helped with the practical decision making I did. When I was in undergrad, I worked at a winery in Northern California. I had the opportunity to work in a number of different research labs. It showed me that to have real growth potential in science and an industry, you really do need a PhD to have upward mobility I guess. I felt like a smart career move would be to pursue a PhD if I wanted to stay in science. Then the actual work I was doing, I really enjoyed molecular biology and plants, working with the plants. So, I ended up deciding to apply for this PhD.

Laurie McGraw:

That's terrific. Working at a winery, that seems like, from my perspective, not a molecular biologist kind of fun. Tell me how extreme temperature is and what that means from crops, or food production, or wine production. Give a sense of that.

Emily Blair:

I guess for my research, what got me interested in this specific area that I study now is I really fascinated with how plants are able to react to their environment. I think when I talk to people about me being a plant biologist, I think what goes through their head is, "Oh, that sounds so boring. You watch plants grow all day." That's not what plant biologists do. I like to think about so it's a really hot day and we're standing in the sun. You're really hot. What do you do? Maybe as humans, we go inside and sit in the air conditioning. Maybe we can move to the shade or drink some water.

Emily Blair:

But plants are literally rooted to the ground and can't move to escape that heat. So, how are they able to survive in that situation? That kind of question is what really fascinates me. Just so you are aware, it turns out that plants actually have this really cool complex Circadian clock that allows them to have a molecular response to hot or cold, that helps them better react to that environment.

Laurie McGraw:

A Circadian clock, like birds, Circadian clock like our sleep rhythms is what you're talking about?

Emily Blair:

Yeah, exactly. Mm-hmm (affirmative).

Laurie McGraw:

It also sounds very complex, Emily. For fields like that, STEM kind of areas, women pursue those and usually in STEM-types of fields: science, technology, engineering, math, they're mainly more surrounded by men than they are women. What's the mix in your particular area?

Emily Blair:

For my area, UCR, the Botany program, there's a number of female scientists, actually. My PI, personally my PI is the professor that I work for. She's a female scientist. Then we also have a joint lab meeting where I work closely with another female scientist. Both groups are led by these women, but I would say that the gender representation is pretty even in their team members. I think that I personally have sought out opportunities to work with women that I admire and that inspire me. Our department really has a huge number of super inspiring and impressive women. So, it wasn't super hard for me to seek that out and find it.

Laurie McGraw:

Is that unusual in your particular field to have this equal number or even number gender across the biologies?

Emily Blair:

I think biological sciences is generally thought to be more female-friendly, from what I have seen. I think as you move into chemistry and physics, and math, you lose a lot of the gender representation.

Laurie McGraw:

Emily, was it important to you or did it really not matter in terms of how you got interested and wanted to pursue it at such an advanced level?

Emily Blair:

It was very important to me. I think the Botany department itself, the community and the culture, and the department is very supportive of women. I really wanted to be in a department that recognized that I had value as a woman instead of trying to get me to fit into a mold.

Laurie McGraw:

As you look around the science tables, there's lots of long conversations about not having enough female voices at the most advanced levels of science. When you see a particular scientist and you're impressed by them, how do you determine how to seek them out in a way that is helpful to you? Is it intimidating? How do you do it?

Emily Blair:

How do I find women to communicate with, I guess?

Laurie McGraw:

Yeah, just like in terms of people that inspire you as you're pursuing such an advanced level of science and the biology labs. How do you seek them out? How do you get help as a young aspiring professional?

Emily Blair:

I was really active in this at the beginning of my PhD. At the beginning of the PhD, you're typically not in a lab yet. You're trying to find an advisor. I rotated with a number of really great women. On our department website we have pictures of everyone. I kind of went through and I looked more closely for women. I was looking for women whose research aligned with my interests as well. We also have opportunities to listen in to women speak at seminar series. There's also men speaking at them, but I feel like I connect more with the female speakers often. I definitely look for women who are strong communicators as well, because that is something I value quite a bit.

Laurie McGraw:

It also sounds like you're getting a lot of support. Are you finding in your field that where there are a lot of women who are out there, are they more helpful to you? Is that connection easy to establish a rapport? How does that go for you?

Emily Blair:

Some of the women I've talked to, they'll say things like, "Oh, I love mentoring young women because I really wish that I had someone like this for me." I do think there's a lot of women in our program who feel like they have this opportunity to give back and to kind of raise up the next generation of female scientists.

Laurie McGraw:

That's fantastic. That's got to give you a lot of confidence and a lot of comfort, sort of knowing that there are others ahead of you who are willing to help. Let's talk about some of the smaller things, Emily. In the world of science, I'm sure that you work with a lot of different people at a lot of different levels. Do you ever experience gender differences in terms of whether it's your work, your lab work, or just conversations that you're having? Or is that not a thing?

Emily Blair:

Yes, I do think I have experienced more subtle issues. I think something that I've struggled with is speaking up in meetings. I think it's especially difficult for me to do this over Zoom. I often worry that I'm going to come off as rude if I'm going to interject, which is the style of communication in our meetings, is often to interrupt people. I have a hard time doing that because I don't want to be perceived in a bad way. I think something I've been trying to work on is being assertive and recognizing that that's not rude to just allow yourself to speak.

Laurie McGraw:

I've actually read recently that for younger people, they're finding Zoom to be actually an easier platform to speak up and participate, and over older colleagues in this area. Are you finding it easier just from a generation level? Or are you also finding it just as intimidating as if you were in person? I'm not saying you said it was intimidating, but I'm just certain that there is some intimidation when you're a PhD candidate so you're working with some pretty accomplished people.

Emily Blair:

Yeah, actually one of the professors I work with is a member of the National Academy of Sciences, which is a very prestigious group, so yes.

Laurie McGraw:

I'll say.

Emily Blair:

It definitely can be intimidating in those meetings.

Laurie McGraw:

Let's just talk about how do you participate on the Zoom, because that is sort of "the new normal", and it probably will be for some time. How are you making yourself heard? Young women often talk about just "How do I have confidence? How do I show up in ways that I can be heard, but not be overly promoting myself," which is sometimes an uncomfortable thing for young women to do.

Emily Blair:

Yeah, definitely. I think something that has helped me quite a bit, because it's really hard for me to wrap my head around. The conversations on Zoom, it's hard to know when to speak I think. It seems like it's really easy to cut people off, and I often find that to be very rude. I think my communication style is also... I use my hands quite a bit. So, I really miss the body language aspect of communicating on Zoom because I think I can express myself better in person. I think something that I have found to be useful is when I feel like I want to say something, I'll unmute and then say, "Hey, can I interject?" Or, "Hey, this is a great point. Could I stop you for a second?" And just giving myself that little five second interjection gives me the space and the confidence to actually ask my question and not I think sound like a moron.

Laurie McGraw:

Well, you don't sound like a moron, I'll tell you that right now. Emily, it also sounds like you're being very thoughtful in terms of how do you get yourself heard in these conversations with lots of different people. Do you think about those things a lot in addition to, again, you're doing deep science work here. You said you're thinking science 24/7, but you're also, it sounds like, you're spending time thinking about, "How do I get recognized for what I'm doing?"

Emily Blair:

Absolutely. Absolutely. I think something that people don't realize sometimes is that the last step of the Scientific Method is actually communication. For me, I think communication is super, super important and I definitely spend a lot of time thinking about how do I communicate my science effectively to whatever audience I'm in front of?

Laurie McGraw:

Are you good at it?

Emily Blair:

I like to think so. I definitely have room for improvement though.

Laurie McGraw:

That's awesome. Let's talk about, you said you were starting to think about in your fifth year you're hoping to finish up this year, and good luck on that. That'll be just terrific. You're thinking about what's next. What is next? What are you pursuing?

Emily Blair:

I think I've got a good general idea of where I want to be longterm. I think generally I want to be in an environment where's there strong female leadership, where communication is valued, and where's opportunity for personal growth and career advancement. As I mentioned, I do think I have this skill to communicate science to both scientists and non-scientists. I didn't really realize how important that was until recently. I think I would really like to find a career where I can use that to market myself, and kind of set myself apart from other scientists.

Emily Blair:

I'm sure you're aware, not all scientists are great communicators. I feel like I can kind of use this to set myself apart a little bit, and hopefully find a position. I'm not sure where the next step is. I think there's opportunity to do these types of things, and staying in academic realms, going into industry or even in policy world. I'm trying to feel out my options right now.

Laurie McGraw:

I think that your point about the Scientific Method, that communication is a key step of that, and you're really focused on that part of your learning and getting prepared for your career, that's super interesting. You talked about you seek out women, you seek out other scientists who communicate well. Do you have mentors today? Do you seek women out as mentors to help you in your professional journey, Emily?

Emily Blair:

Yes, and I think this is something that I want to grow. I think I'm not great at pursuing mentorship relationships. I think kind of getting back at that intimidation point that you made earlier, sometimes I'm just "Why would somebody want to talk to me?" So, definitely mentorship is something I want to work on and try to find more mentors in my life.

Laurie McGraw:

I think Emily, just like you were talking about asking, and women do really appreciate the opportunity to help other young women. With that in mind, at Inspiring Women, for the reason for doing this podcast is to talk to young aspiring professionals like yourself, other women who are advanced and accomplished in their careers. If you think about what you want to learn from, what you would ask other women who have already made it, what are the kinds of things that you'd want to know?

Emily Blair:

I think because of where I'm at in my career right now, I feel like I'm at this transition period where I kind of have to make a choice of where I'm going to and how am I going to start my career really. I would be really interested to hear from other women about how they made decisions at these key transitional moments in their careers that have allowed them to find success, and then how they overcame the fear of choosing the wrong path or making the wrong choice at this point.

Laurie McGraw:

Emily, I am going to take those questions and I am going to continue to ask other women that. I can tell you though, thinking about it and asking out loud, and talking to lots of other people is always a good start. But at the end of the day, what I think you're going to hear and you'll hear it from me, you'll hear from others, is the traces are always up to you. You can make wrong decisions, and you also can choose differently if you've made one of those wrong decisions.

Laurie McGraw:

I will say Emily, it sounds like you are off to a great start and I wish you nothing but the best as you close up this last year of your PhD. It has been a conversation talking with you today, so thank you so very much. You can find more podcasts on Inspiring Women on our website, but where can people follow you if they want to see your career journey continue?

Emily Blair:

Sure. Short-term, you can find me on the UCR Botany website page, but I also have [inaudible 00:17:36] and a Google Scholar. You can find my one publication, and hopefully more to follow.

Laurie McGraw:

Fantastic. All right, Emily. It's been great talking to you today. Thank you so much.

Emily Blair:

Yeah, thank you.

Laurie McGraw:

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