

# Inspiring Women

## Episode 29: Dr. Ying Sun

Laurie McGraw:

Welcome to Inspiring Women with Laurie McGraw.

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](http://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. And today, we're speaking with Dr. Ying Sun. And Dr. Sun is a researcher at the Salk Institute doing genomics research on different plant species. Now, she received her doctorate from Stanford. She did her postdoc at UC Riverside. She also received her undergraduate, did her undergraduate work at UC San Diego. She is a first-generation student college grad, post-doc now, who immigrated to the United States from rural China when she was very young. She grew up in Las Vegas. Her parents did work there at the casino, so she has a very interesting story in how she got to this very important work that she does stay at the Salk Institute.

Laurie McGraw:

And Dr. Sun. I am very happy to speaking to you today.

Dr. Ying Sun:

Hi Laurie. It's really great to speak with you as well. Thank you so much for having me.

Laurie McGraw:

Well, thanks for being here. And why don't we just dive in? You have this unbelievable career trajectory doing research today. And you have an unusual road in terms of how you got here. So, why don't we just start with, what are you doing today? What does your research entail? What do you do day-to-day?

Dr. Ying Sun:

So, right now, I am a postdoc at the Salk Institute being co-advised by Todd Michael and Wolfgang Busch. And I am part of a program called The Harnessing Plant Initiative, where we're trying to engineer different crop plants so that they can maintain the yield that they're currently producing, but also be able to sequester more carbon from the environment and put it into the ground using their root system. And the objective is to, hopefully, combat climate change by

using something that nature has engineered for many years to be able to capture carbon and store it for the longer term, and that's plants.

Laurie McGraw:

Well, Ying, this is a great area to be working on. And a climate change is such an important and urgent and big issue. And so, the level of background in terms of degrees that you have and research that you're doing and contributing to is very important.

Laurie McGraw:

But you have also an unusual story in terms of how got to this place of being a scientist that you are. So, can you give us a bit of that trajectory starting from rural China, getting to here, how did that happen?

Dr. Ying Sun:

Definitely. Yeah, so I guess my journey is very unusual and non-traditional, if you look at the proportion of students who became interested in research, and decided to do a PhD. But I think if you ask students that come from minority backgrounds, how they got into science it's very serendipitous in a lot of ways. And I'm sure there's a lot of really exciting stories out there in addition to mine.

Dr. Ying Sun:

But, for me, my parents immigrated from China because they wanted to have a better opportunity. And so, they came to the US and landed in Vegas. And in Las Vegas, we live in a desert, and there wasn't that much science that I was involved in growing up. But I knew I wanted to go to college. And so, I think I randomly chose UC San Diego because I wanted to be a vet at the time. And there was San Diego Zoo there.

Dr. Ying Sun:

And once I got to college, it was really expensive. So, I wanted to look for another job. And that's why I came across this night imaging position in Steve Kay's lab who worked on circadian rhythm, both in plants and animals. So, I started off as a night imager. And, luckily, a postdoc there was working pretty late at night and we would chat. And she was like, "Are you interested in doing some research?" And I was like, "Yeah, that would be great." So, that was kind of how I started just very serendipitously. And also because I was willing to do something that I think not a lot of people were willing to do at the time, which is to work from 2:00 AM to 7:00 AM and then go to class the next morning.

Laurie McGraw:

Yeah, well, I think most, most people in college wouldn't want to do the 2:00 AM to 7:00 AM shift. But Ying, I mean, as a first-generation student and pursuing the career, I think it is an unusual journey. And you also are pretty astute in recognizing that for women like you and other scholars who are first-generation or BIPOC, Black, Indigenous, People of Color, types of scholars, that all of those stories happen to be sort of different, unique. And you've also, in just reading I've done about you, expressed that there were challenges that come with that. You don't necessarily have the mentors. You don't have necessarily the go-to resources that perhaps other

scholars and colleagues that you have. Can you talk about some of those? Those different challenges and [uniqueness-es 00:05:47] that you've experienced?

Dr. Ying Sun:

Yeah, definitely. So, I think what I've experienced I realize is not super atypical, but it's not very well talked about in science. And that's just kind of when you're having a scientific conversation, you need to be really clear with your words, and you need to be clear with what you are trying to get at. And sometimes that directness that scientists have can be very intimidating. So, if you come from a really large university and then, you go and talk to a professor, one-on-one, it can be very scary sometimes because the professor just feels like they're so eloquent. They know exactly what they're saying. They know exactly what they're talking about. And you're just kind of stumbling around trying to find your words. And then, if they ask you a question, it's very overwhelming because you're not sure if this is the right way to say it, or you're not sure if that's the right response.

Dr. Ying Sun:

And so, I think when I started grad school, I had a lot of those insecurities. And people will say, "Oh, it's imposter syndrome." Or, "You just need to fake it until you make it." And you have a lot of those discussions. But I think it's also understanding there's a cultural aspect too. So, as an Asian-American woman, you also deal with how to respect authority and not to challenge too much, which can sometimes be misconstrued in this arena, where you're trying to be clear, you're trying to support what you say with evidence. Not to attack someone, but to hopefully through discussion arrive at a better outcome than what you had going in.

Laurie McGraw:

Well, I think some of those things, fake it till you make it, this is the Amy Cuddy sort of approach. Those things can work. But as an Asian-American woman, as someone who is unique in your path to being the scholar and researcher that you are, I have to imagine that you're also unique in that you're one of very few other people like you. Has to be isolating. And not necessarily all the right people to talk to. How did you deal with... and I don't want to speak for you. But did you experience that, those isolating feelings? And, if so, how did you deal with that?

Dr. Ying Sun:

Oh yeah, definitely. Part of being either first gen or a person of color is that sometimes you're the token representative of whatever your identity is in your cohort. So, I think, I found support through various ways. Some things that I did was I joined a lot of diversity groups. So, at Stanford, we had groups like BioAIMS, and ADVANCE, and just different groups that would give you a sense of community.

Dr. Ying Sun:

So, I was part of a transition program in my first year of grad school that really helped me find some people who I felt safe to talk to, and that I trusted so that I could admit, "Hey, I actually don't know what's going on. Do you know what's going on?" And sometimes they didn't know what was going on, which was really validating to me. Or sometimes they did and that they were

able to help me. And then, also mentors. So, we had a solid mentorship program, which connected students with professors, and that was helpful.

Laurie McGraw:

Did you find mentors in those sort of more community groups, or did you find mentors through other programs?

Dr. Ying Sun:

Yeah, so I think my approach toward mentorship is that I think of mentorship as more of a network than just one individual. And so, I found mentors amongst my peers, and that was able to help me deal with some of the anxieties that you have when you first start grad school. And then, I found mentors in professors as well. So, they were able to be like, "Oh, so maybe I heard of this that you may want to look into. And here's the connection that you may have." And then, also in the admin too. So admin are also great mentors because they don't always get the science, but they do get kind of the emotional aspect of something, and how to manage your time, or other stresses that are pretty typical to anyone trying to climb any sort of corporate or academic ladder.

Laurie McGraw:

Well, building a network of mentors is excellent advice. And in particular, when you are a unique individual sort of without a lot of peers that look like you, or come from similar backgrounds that's terrific advice, Ying. You've also talked about this, the leaky pipeline of BIPOC scholars, and that's a problem that's become only more urgent with COVID, this pandemic that we've been going all through this past year. You've talked about something called DAM, I've read a little bit about this Diversity, Allyship and Mentorship. Can you talk a little bit about that? What is that? Why is it important?

Dr. Ying Sun:

Yeah, it's just that when you go through academia, it's kind of a competitive process because everyone who wants to succeed as the processor will have to write grants that are competitive, because there's a limit on how much funding the NIH or NSF is able to allocate each year. There's also people who are working on similar ideas as you. And the expectation is that you teach, you mentor, and you also perform high quality research. And all of those things are great at face value.

Dr. Ying Sun:

But during the pandemic, I was struggling with family issues, my own work, and just what's going on in the news and current events. And a lot of these things people don't acknowledge, actually, have a major impact on your productivity. And that leads to this leaky pipeline because it's not equal. As much as there's systems in place trying to make this process more equitable, we're not there yet.

Laurie McGraw:

And we have such a long way to go. And so, Ying as you think about that, I mean, this past year beyond the pandemic, beyond the social unrest, beyond everything that we have gone through as

a nation, as individuals experiencing it in many similar ways, but also many different ways. There are different issues, depending on who you are. You're an Asian-American woman, you are a leader, you are a researcher. So, as an Asian-American woman, what are some of the things that you have experienced that you want listeners to know about in terms of what they might be either considerate of, or have awareness of in terms of your experience?

Dr. Ying Sun:

Yeah so, as a first gen, I would say maybe some things that my other first gen colleagues will align with is that we're really stressed out about finances quite a bit, just because in academia, we don't get paid very much. And we're really intimately tied with our families. So, a lot of the times it's not just about me and my success, but it's about the success of my family, my community as well.

Dr. Ying Sun:

So, if someone doesn't have a job, then I feel almost a responsibility to help them because now I have all of this wisdom that I've accumulated from my education that I can share. And so, I think just being considerate of everyone's different identities and what they bring to the table, I think is really important. And I hope that if you are listening and you do come from a first gen, low-income family, or you're a person of color your experiences are seen, and heard, and valued. And that if you do know someone who comes from this type of identity that you take the time to listen to your peers and colleagues, because it's not just about the science all of the time, it's not just about the work all the time.

Dr. Ying Sun:

And in order for us to kind of plug up all of the leaks, we need to see the individual within the work as well, which is why I appreciate this podcast as well.

Laurie McGraw:

Yeah well, seeing the differences, I think that's digging into here's what allyship really looks like. So, mentorship you've talked about in terms of building the network, that's a very important thing to do. And you, as an individual, can control it. Allyship is what you're asking others to do. So, give us some examples, perhaps. What does being a good ally look like? What does not being a good ally look like? And how do you, as an individual, deal with those things?

Dr. Ying Sun:

Yeah. I think, to me, an ally is who helps support me in a way that will allow me to succeed. So, my past advisor was a really good ally because during the pandemic I was having some issues transitioning between jobs. And he was like, "Well, I know that you're struggling. I know we're all struggling, but perhaps you could work for me temporarily while you look for a job since this is a really hard time to find a job." So, I feel like allies, when you talk to them, even if they can't help you so directly like that, the intention is that they're always there to support you. And they put you first.

Dr. Ying Sun:

Sometimes when I have someone who's trying to be helpful, but then they think about it more from their own perspective like sometimes someone will say, "Oh, I'm so stressed, but what can I help you with?" That's not very helpful because then I'm like, "Okay, well maybe you can work on your own stresses first. And then, I'll tell you what I'm stressed out about."

Laurie McGraw:

Yeah, putting the responsibility back at you as not exactly the most helpful.

Laurie McGraw:

Well, Ying, This is really just such a great set of stories. And I really appreciate you sharing them. As you think about the work that you're doing today and after all this fantastic education that you've had, the research that you're doing, what do you think about for the next 5, 10 years for yourself?

Dr. Ying Sun:

So, I see myself as someone who's just constantly trying to learn, and grow and break these barriers. I think I've become really resilient over time. And I just feel like we have such a long way to go that it sometimes feels like, "Can't I just go into a group where the track has already been laid out and everything will be nice?" But no, I feel like I'm always trailblazing and trying to figure it out and, hopefully, making it easier for other people that come after me. So, if I can do that for someone, I'll be really happy.

Laurie McGraw:

Well, I think, you are trailblazing and that is why I'm so happy to be talking to you on Inspiring Women. This has been an excellent conversation with Dr. Ying Sun. And I really appreciate you being here. Ying, thank you so much.

Dr. Ying Sun:

No problem. Thank you for having me.

Laurie McGraw:

This has been an episode of Inspiring Women with Laurie McGraw. Please subscribe, rate, and review. We are produced by Kate [Crew-s 00:17:17] at Executive Podcast Solutions. More episodes can be found on [inspiringwomen.show](http://inspiringwomen.show).

Laurie McGraw:

I am Laurie McGraw and thank you for listening.