Transcript

Hello, and welcome to *Doing Science Differently*, a podcast that explores issues in the culture and practice of research. We interview experts working on making the world of science a better place and learn how their pragmatic approaches can change practice in the lab or clinic.

Today, I will be talking to Wendy Ingram about mental health in academia and her organization Dragonfly Mental Health.

Christine

Hello Wendy. I'm super excited to be talking to you today about one of the most like, most close to my heart topics in academia right now. And also, I think one of the most relevant topics for early career researchers or researchers of all ages, basically, mental health and academia. Maybe we can just dive in, and you can tell us a little bit about yourself, your background and your personal journey to the field of mental health.

Wendy

Sure, yeah. It's such a pleasure to be your guest today. And I, like you, mental health within academia is very, very close to my heart. And today is actually an extremely poignant day to be doing, to be recording this podcast. So first, I'll tell you a little bit about myself, my background. So, I started biochemistry research when I was a first year in college. I got hooked with bench research and totally fell in love with the amazing amounts of information and insight we can have into the biological world, and how much we really just didn't even know yet. So really, like my core interest in academia and research started very young. Almost 20 years ago now. And in a biochemistry research lab. And I love, I love the pursuit of science. I love research labs. I love academia. I love teaching. I love mentoring. And have done all of those things from 2003, when I started in, as a researcher and in a lab at University of Arizona. And then, you know, it didn't take long for me to know that I really wanted to get my PhD and continue doing research. And what really would drove me was, I was always interested in mental health and mental illnesses and trying to understand mental illnesses at a molecular level. And so that's what drove me to pursue first year in a research lab studying mouse models of schizophrenia, following my undergraduate work, and then applying to basic science programs, including UC Berkeley's molecular and cell biology, which is where I ended up getting my PhD. And so there I was studying a brain parasite that makes mice lose their fear of cats. And it was just the most fascinating, interesting intersection of immunology, animal behavior research and, and then neuroscience as well. It was just, it was fascinating. The 'psycho-neuro behavioral-immunology' of it all. And then for my postdoc, I wanted to go back towards human data. I thought that, you know, there was really the only way to study human mental illnesses is truly through studying human data. You know, all the models have their place and their power. But for me, I wanted to get closer to the source, so to speak, of my interest. And so, I did a dual postdoc with a place called Geisinger Health located in central Pennsylvania, that has the longest record of electronic health records of almost any institute in the country. And then they had huge amounts of repository of genetic data as well. And then I trained at Johns Hopkins in the School of Public Health in the Department of Mental

Health, with folks that specialized in psychiatric epidemiology. So that's kind of been my, you know, research and academic journey. And I've been very, very fascinated with and training deeply, and from molecules to populations, looking at mental health and research.

And then simultaneously, to that work and my love of science and research and academia, there was this very unfortunate undercurrent that really, you know, dragged a lot of people down and even resulted in some deaths that affected me directly. And so, when I was a graduate student in UC Berkeley in California, we lost a classmate to suicide and depression. And that was back in 2013. And myself and a number of other graduate students got together and just started talking. Finally, for the first time, we realized everyone was struggling, everyone was having a really hard time. And nobody was telling each other about it. Everyone thought they were the only one struggling and, you know, so that really was a horrific wake up call for myself and, and a lot of my colleagues, and we, a group of us bound together and tried to make a difference, tried to make some changes locally in our own population and for our own department. And it was, it was great, it was awesome, it felt good to respond to tragedy with action. And, you know, action has really just been my coping mechanism my whole life. But that's what led us to create something called a peer network. It was, you know, peers helping peers. And we started talking about these problems and talking about these issues that face a lot of us and the stresses and the anxiety and depression and other illnesses that people come in with. I myself have bipolar disorder and knew that coming into grad school, and I knew grad school was going to be one of the most challenging times for me, and managing my disorder was going to be an additional challenge to the standard issues that everybody faces in grad school. It's really tough. Not for the faint of heart. But you know, I was keeping it from others. I didn't tell people that I had this condition because it was so stigmatized. And so, you know, so really came out that people with pre-family histories or predisposition, or, you know, just people who didn't have any of that stuff, everyone is susceptible to mental health struggles. And, you know, we, we started talking about it, and it really made a huge difference. And then I went off for my postdoc after I graduated. And in 2018, we lost one of my classmates, and one of my closest friends from grad school, Dr. Chris Alvaro, to suicide and depression as well. And today, May 23, was the birthday. So that's why today is such a poignant day to be recording this podcast for me. And that's what inspired Dragonfly. And Dragonfly Mental Health is named after, after Chris, in honor of Chris Alvaro, who also graduated in 2015 from UC Berkeley with a PhD and went on for a postdoc at UCSF and was just a pillar of our phenomenal academic community, and, and always giving to everybody else. And a mental health warrior themselves. And, you know, even the, even the strongest, even the most educated we can lose permanently. And it's something that I'd really like to see stop. I'd really like to see what we can do to make the changes within academia and within our community to, you know, to save these people, to protect these people to the end. By these people I mean everyone, literally everyone, myself included. And we can, we can and we are, and that's what we're working on at Dragonfly. And the reason why we named it Dragonfly was because Chris got it designed and got a tattoo of this, our logo, the little Dragonfly on their wrist when we were in grad school together. So that is who we work, you know, for every day, and are reminded of on a day-to-day basis of the brilliant, beautiful human beings and minds that we don't want to keep losing.

Christine

Yeah, that is such a beautiful story and also very tragic what you said. There was so much in there. And like all that you said. First of all, I love the excitement that like, I can even see in your eyes, when you

talk about science and all. It's like, this is what I love. This is my passion. And I mean, it's just also curiosity is such a powerful character trait or thing to have to keep us moving. But then you said, you all suddenly started talking after the first tragic loss and that means, like, despite this excitement, there was still something, some underlying pressure or suffering. And then you said that all your fellow classmates or fellow students also started talking to that moment. So that, like, that's what really is so, like striking. Why didn't they like feel they could talk about it before? Why did it need such a tragic moment for them to suddenly open up?

Wendy

Yeah, it's such, and I think about this often, and how frustrating it is that it takes death, it takes a loss, it takes an irrevocable, uhm, action for us to wake up, for there to be, for that to be the catalyst, to use nerdy language. As analogy, it's like, that's the act, there's a huge activation energy to change and what we do on a day-to-day basis. And acknowledging things that pretty much all of us are treading water. And just doing, you know, doing everything we can in order to do well and focus on the positive. And to, you know, continue to focus on the what I need to do today versus taking a step back, where these tragedies really do and these losses are the things that you can't help but stop in your tracks, and take a bigger look at the forest, and then finally see the trees. You know, it's so wild, how the interaction between individuals and culture, that those individuals are in and help build, cycle into each other. And so, if there's never any time, if there's so much pressure, that there's never any time to do anything else, including self-care, including, you know, taking care of you, making time to take care of your mental health, let alone deal with and chew on and work on the stigma that is imbued in the wider society about mental health struggles. And then layer on top of that, this incredibly high-pressure environment that everyone you know, everyone who gets into grad school, are probably coming from, you know, larger cohorts of people who didn't go to grad school. And so, they were probably the smartest people at their school, the smartest people in their class, the top earners of all the grades, and, you know, scoring the highest on everything and doing the best on all the activities that they did, and the research that they did, you know. They are high, high achieving people, and often very, very high intelligent people. And we actually know from data that have high achieving, high educational attainment, high intellectual, you know, IQ folks have higher rates of self-reported anxiety and depression and bipolar disorder than the general population. And they're also less likely to seek care for that. And so, we, you know, we have to unpack all these different levels of well – why are the rates higher? And also – why are the help seeking behaviors so much lower? And, you know, I can speculate, I can certainly talk about my own experience and why I didn't talk about it. But you know, first person narratives have their place and are very educational, but also just looking at huge datasets, like finding out how many people really are in the same boat and acting the same way. That points to bigger, bigger systemic issues as well.

Christine

Yeah, yeah. I can totally see that. And you already answered my next question, actually – like why in academia specifically, or why are the rates of mental health impairments so high there? And you already said that. But obviously, there's also individual stories to it all the time. But then you also mentioned the environment that we are in, so that like, with we, I mean, we are in academia, researchers or whoever is, is listening to this episode. So, what is the character of this environment like?

Wendy

I mean, again, I can certainly speak to my own experiences at the University of Arizona, which has some very top ranked programs. But I was an undergraduate and I was in a research lab, but it was maybe top 40 schools in the nation ranked for biochemistry and molecular biophysics. And, you know, I really lucked out, I think, going to a school that was a very good school and had phenomenal researchers there, trained at Yale and MIT and Bowdoin. And they, you know, the professors at that, you know, the person that I worked for did a six-year postdoc at MIT and in a very, very high prestigious lab and whatnot. But the program that I and so, I got to actually learn directly from that person, which was amazing. And I realized when I went to UC Berkeley as a graduate student, which is one of the top five ranked programs, any given year, depending on which one you're looking at, in the biology and molecular and cell biology, it was no undergrads got to work directly with PIs for the most part. They're being trained by graduate students, such as myself, or maybe postdocs but very rarely was there that level of interaction with these, with the professors themselves. And there's, I'm not saying that there's a value judgment of one over the other, but, you know, there's, there's this level of pressure once you reach that, either that really highranking schools for both graduate students and undergrads. But also, you know, the pressure was on once I got to grad school. As an undergrad, I really just benefited from this incredible research environment and collaborative environment where the postdocs and the graduate students in the lab treated me like one of them. It wasn't, uhm, I wasn't ostracized, there wasn't something lower about me because I was still an undergrad. They just, you know, would teach me these techniques and then I would do them. And I did a ton of work as an undergrad and contributed to four papers that came out of that lab, one of which was a co-first author paper as an undergrad. And I was like - wow, this academic research thing is easy and great. And it was like, no, this is not a typical experience at all. Not that I thought it was easy. I worked my butt off and I spent all my summers there, and I applied for Fellowships to stay there. And I did all these different things. But I really benefited from going to undergrad at a place that wasn't as highly competitive. But very seriously, all that changed when I got to UC Berkeley, and I love personally, I love being surrounded by people that are smarter than me, that are better than me, that are more accomplished. I love that. I think it's great. I love jumping into the deep end where I know nothing. So, I'm very used to that and that's a personality trait of mine that I think benefits me because for the most part, that's what all of us are doing no matter what you do and where you go. And so, whereas I know that hearing from friends of mine, hearing from other colleagues, they were so used to being the smartest, the best, the most, you know, the highest of their class, standout. You know that was a major source of anxiety and stress and gave rise to what now everybody's kind of calling imposter feelings or imposter symptoms. It's, uhm, so it's really quite, you know, I think it was great for me to be the youngest of three children, and used to not being as smart or strong or advanced as my siblings.

Every single person is different, every single person is going to be coming from a different background, a different experience. You know, what always amazes me was international scholars and people who are coming from other countries that spoke other languages, and then they're doing the same you know, if not much better than me. My own language and I only know what, it's very pathetic as Americans for the most part. And you know, for me it's amazing but there's so much stigma and discrimination. And it ranges from, like really minor stuff, like what we call micro-aggressions, to really severe negative things. Where people will actually have papers rejected because it's not, it's perfectly good English, but it's just slightly different than the reviewers are used to. And then they, because of maybe the name or something like that, they make assumptions about people's English abilities, and then say it's unreadable. And this

severely, horribly, you know, affects people. And so, there are, and there's no repercussions for those reviewers either. So that's just to kind of circle back to well, what in the environment is going on. A, it's super high pressure. B, we all come from completely different backgrounds and are suddenly like usually big, big fish in small ponds getting into a really big pond with like a ton of fish that are way bigger than us. And it's very intimidating. And there's a lot of pressure to perform, especially if you have a long history of super high performance and are high achieving. And then, for there to be systemic, unabated, acceptable harassment and marginalization, and discrimination happening. Where tenured faculty just aren't touchable, you know, if they're the ones kind of contributing to it. And you know, not to mention, just like the peer-to-peer issues that can happen and lack of understanding, because you end up with these incredible, it's a worldwide, Dragonfly is a worldwide organization very intentionally, because academia is a global enterprise, we are all interconnected. And our research directly, you know, relates to all the things that everybody else is doing. And we have to publish in ways where we can share freely with each other, in order to collaborate ethically with one another. And in order to reach the goals that we claim we care about, which is advancing science and knowledge and research and health and understanding of our world, and our biology, and our minds, and everything. And all of that, you know, the system itself rewards often too much of bad behavior, unfortunately.

And I think that, that, all of those issues, play into the cumulative, you know, big statistics, we have like a study in 2018, its pre-pandemic, showed that rates of depression and anxiety were six to eight times higher among graduate students than the general population. And this is alarming, this is incredibly high, and we need to address this. And then the pandemic has really made things much, much worse. And really, unfortunately, in a lot of ways, set back the progress that had been made for people who are historically marginalized and excluded from academic settings, so women, people of color, people from lower socioeconomic status, people with disabilities, you know, including mental health conditions. Just all of these things have really been that, we were making lots and lots of wonderful progress, and a lot of that has been lost, which is so unfortunate, and has to be looked at and addressed. Unfortunately, it is, there's a lot of people interested and a lot of institutions that do know about this, do care about this, do recognize it, and aren't going to be okay with things getting set back 10-15 years in time and let the slow progress happen again. So that's, that's really what leads to my hope and my optimism around what we're doing at Dragonfly. We're getting calls and outreach every single day from institutions all over the world. And in just two years of operating, we've already delivered over 160 programs to more than 20,000 academics in 15 countries.

Christine

Wow.

Wendy

So we are, there are people out there that are bringing us in, that want this, that are dying for it. So yeah, we really, really want to work with anybody who cares about this and maybe just doesn't know where to start. We do. And that's, we're taking the pressure off, just give us a call, reach out, click our little 'Book now' button on our website, and we will get in touch right away and set something up with you.

Christine

Amazing. It's already like so much, so great information that you just gave, also about the work environment at academia. It's just so striking how we're actually in science, academia should be a field of like a fertile ground for ideas to come up, for like new things to be explored. And what you all just described from your experience, when you changed the lab, from first your good experience as an undergraduate and then afterwards, it's just so shocking. And it's just so what it's not supposed to be like, in my head at least the vision would be different for like a good ground to make good research. But yeah, so if we get back to Dragonfly, or maybe like your vision that you have and what you do. Maybe, can you quickly give the listeners a few, like things at hand? Like, if they are struggling, if they have issues, if they're maybe also struggling with 'I don't even know who to talk to because I've never talked about this'. Or 'how can I help my fellows, like colleagues or whoever, who I see are struggling, but they are not seeking out help'? So maybe these two things? Can you give some advice on that?

Wendy

Yeah, so for, if they're struggling themselves, one of the things that we care about deeply at Dragonfly is to be open access and freely available, make all our information freely available. So, for, you know, for basics, just the basics, 'I don't even know what this is', or 'if what I'm dealing with is an issue that I should be seeking care for', you know, if you're just not even sure, we have all of our Mental Health Literacy programs available and online on our YouTube channel. So, these are a great place to start. If you're, you know, curious about burnout, curious about depression, curious about a whole, just getting a basic overview of all mental health literacy. We have all of these things available. We also have a seminar on Impostor Syndrome. We have one on, we actually just have one, if you're not a student, but a faculty member or a supervisor of some sort, we have now just recently released and if it's not on our YouTube, linked on our YouTube channel, we'll have that shortly, but Burnout, practical tools for supervisors. And so, these are things that, you know, every single thing that we create, content wise, is tailored to academic audiences. And we make them all freely available to anyone, anywhere so well, that has YouTube, I guess, maybe certain countries might not allow that these days. But we're working on that too. And we're working on accessibility to make sure that everything is subtitled and available to folks that, you know, maybe have need to use screen readers or something like that, as well. So, we're, we are working on all of those things, we have those available. So, check out our YouTube channel. And that will answer a lot of questions. Another thing that we care very deeply about, other than creating content, is community building. So, we have this incredible community of over 300 volunteers from more than 45 countries. And we interact with each other in a couple of ways. And one of which is our volunteers kind of focus on Dragonfly activities and what we're doing and solutions and dealing, thinking about and creating, you know, this progress in things like systemic change and research, more content creation. So, if you have an idea or something in particular that you want, you think academic audiences, especially your own, would be interested in, please reach out and feel free to join our volunteer ship. We have internal values, where we focus on and value your time, your effort. We care very deeply about making sure that whenever we can, we can compensate our volunteers for their work. So, every delivery of a Dragonfly program on a campus our ambassadors are compensated for that, that activity. We have a formalized ambassador training program for people to learn how to deliver our programs on their own campuses and on others. So, if any that sounds of interest to you, really you want to get involved, like, please volunteer with us. And check it out. And we'll have our volunteer coordinators reach out to you right away.

And then we also have a freely available, you don't have to be a volunteer, platform called Dragonfly Café. And so, during the whole pandemic, we started right at the beginning of the pandemic, meeting three times a week, and it was just peer support, academics time together. I mean, it was a volunteer idea, because they, they reflected during one of our organizational meetings, that they were having a really hard time not interacting with their peers. And we were like, we should fix that. What should we do. And we started just hosting this, you know, very casual environment that was focused on peer support. And people could come, and they could listen, and they could talk to each other. And they could, you know, talk about very serious things like depression to very silly things like, you know, what kind of velocity would it take to get a potato from Wales to Essex.

So just a whole range of very silly nerdy things. But it was, it was folks who get it. Who are in master's programs, PhD programs, postdocs, or even faculty. And it really is a powerful environment. We also have a newsletter for community building. So, volunteers or anybody who's just interested in Dragonfly can submit content for us to include in our monthly newsletters to each other. So, and that's also a source of just seeing and hearing and reading that you are not alone, that other people have struggled, that other people have reached out for help, that other people have gotten better, because they did that. And so, all of those things, the Café, the newsletter, and even joining-in as a volunteer at whatever capacity you have the ability to, we would love to get to know you and include you in our efforts. I will say that we are not a mental health provider in any way, shape, or form. We are focused on providing information, but that information does not substitute for seeking medical care. But if what you want to do is talk to other academics and learn more about their experiences and what they did, when they reached out for help, and to whom and how that went, you know, we're peers in this and we're around so we can respond in that way for sure.

So then, what we can do, the second part, so if you're wanting to engage in your community and really make a difference, give us a call, like, reach out through our website. We have a contact form for booking us and it's just a free informational meeting. You can meet with our consulting team, and they will tell you all the things that we have available. You can bring us to your campus, we can virtually or sometimes if there's an ambassador close enough, who's trained in the content that you'd like delivered, can do it in person. And we can work with you to you know, bring change to your campus. And we do this in a bunch of different ways. So, seminars, Mental Health Literacy, is just one, is usually the quickest, easiest and most useful way to start. If you want to organize something like what I did at UC Berkeley with my friends and colleagues was start our own peer network. We have some YouTube videos available already online. And if you want additional support or advice, we've got a whole host of volunteers internally that we can connect you with who can give you advice on starting a peer network in Germany, in the UK, in the US, like we have all these different experiences. But it's really powerful to learn from others and not have to feel like you're doing it on your own or you're 'reinventing the wheel'. We are, we have rallied those resources for you. So, if that's the kind of thing you want to do, please reach out as well to our consulting department, and they could connect you with our, with the folks who are peer network experts and point you in the direction of the videos that are available already. And then, we now have launched a comprehensive three-year program. So, for this, we'd have to, you know, talk to you. And then, we talk to you about how to get us connected to some stakeholders, and like big, big gigs in your department, but Chairs of Departments or Directors or Provost, or depending on, you know, your institution, what they're called, is often something different. But we are, we just launched our first comprehensive threeyear program with University of California, Berkeley, in the Molecular and Cell Biology Department. And

that's going to improve the entire climate and culture around mental health through improving mental health literacy, improving skills training around supporting yourself and others in your community, and fighting stigma directly. And then, in addition to that, we work really, really closely with the faculty, the postdocs, the graduate students, everyone throughout the whole organization, to create all of these peer networks that I mentioned are just so critical for peer support and success, and destigmatizing mental health struggles. And then to create a departmental committee that has both authority and transparency around their policies, around establishing policies that are missing and around making sure that these things and their community are really supported and paid for and, you know, prioritized against other things. So, at the end of the day, you know, our minds are our greatest tool, and we really ought to be taking care of them in a way that is super intentional, which is just bizarrely beyond the academic community, for some reason that right now. You know, elite athletes, you know, spend as much time in rest and recovery and warming up and all these things with their bodies. And if there's the slightest indicator of an injury or a strain, you know, they're not going to keep playing on it, they're gonna stop, recover, and address it. And we just, we don't do that in academia, do we, like, you know, so we need a culture shift, we need a major revolution, in my personal opinion.

Christine

A revolution that you started with Dragonfly basically. It really sounds like a huge movement, actually, and like changing the system from the inside out. And I think also, what would you said is, you said, you don't provide like therapy or anything like that.

Wendy

Correct.

Christine

But the first and probably one of the most important step is connection, you know, just crossing that your inner hurdle of 'hey, I'm going to reach out to people and there are some that feel the same way or have experienced something'. And that already can just be so, so healing already, to some extent, and then looking out for help, but I think the part of like this community, how it's just growing and growing, it's amazing. And I'm, I'm sure it's gonna, or I hope, but I'm also sure it's gonna change, like the system, to a large extent.

Wendy

Thank you so much.

Christine

It just sounds like, I don't know, it's just advocacy on steroids. Super nice, the excitement that you had, when you said how much you love science, I could clearly also hear the excitement when you talk about that topic. And I think the tragic losses that you experienced with that, like they motivated you to start something like that. And I think your two friends would be extremely honored and also moved to see how,

yeah, how basically, you put your coping mechanism into action to deal with that and make something beautiful out of the tragedy.

Wendy

Yeah, thank you. And I mean, the thing that I always say is, to friends and whatnot, well, if Chris was here, they'd be doing it better than me. So, I'm really annoyed with them actually. I'm having to do the hard work. But no, they're, I miss them so much, and I am doing everything in my possible power to right wrongs and to create change, so, so we don't keep losing incredible, beautiful people, like Chris. So, appreciate that. And it is so much fun. By the way, getting to know people from all over the world, from all different disciplines, from all the walks of life, it is incredible, how fun it is to work with Dragonfly, like, I just have the best time ever. It's you know, I hadn't this intention, I was not planning on starting a non-profit. I had no intention of doing such a thing. Yes, somebody strapped some dragonfly wings on me and off I went. But yeah, we are we're doing such amazing work. And the, it's, we, there's so many incredible people doing this. And I would not have been able to do any of this by myself. So, this is just something so incredibly wonderful. And we are walking our talk, it is all about community building and community support and community knowledge and community learning. I'm learning, I learned from people every single day, it's absolutely so rewarding and so beautiful. And like you said healing. And so, action is my coping mechanism. And this action has helped me cope a lot.

Christine

In a very, very beautiful way, I can only support that. And I can only shout out to all the people who listen to this to check it out and have a look and maybe even join your community and try out some, watch the videos that you recommended. And yeah, just reach out to their peers even and spread the word I would say to, to remove the stigma and just, I don't know, make life a little easier for all our fellow researchers, and a little more exciting and fun.

Wendy

And it can totally seem incredibly intimidating to like bring us to your campus but we are so good at this now. Just get in touch, just shoot us that email through the forum. And we will make it so easy on you, it's going to be awesome. And you will be blown away at the power of just having one talk at your, within your community. It will blow your mind how many people are feeling this way and thinking about the same things and care about it and have great ideas and want to do more. And this is you know, it's this strange activation energy that everybody's afraid to make the first move, but as soon as you do, like, ah, they come out of the woodworks and that's where the real change happens. It's when you find who your other, you know, compatriots are within your organization. So, I would highly, highly recommend if you do one thing, you know, check out the YouTubes for your own benefit. But click that button on our website for booking, booking us and bring us in to your campus because we will, you know, that is how you initiate change. That's the little thing, once you get past that, it catalyzes so much so yeah, we're here to help.

Christine

Amazing, amazing. Thank you so much for starting all of that and providing so much help to all the struggling, smart, and amazing minds that are out there. Also, I think that people ignore a lot is that if you're mentally well, then your work will also be done a lot better. Your research, it benefits from it incredibly. So just a win-win situation here.

Wendy

Yes, yes. And to every single person listening, you are so special and important and an integral part of this community of academia. And we need you, we want you, and if you're not feeling that, if you don't recognize that for yourself, reach out to Dragonfly and will see that you are part of the most, you're such an important part of this. So please, please know that you are really, really wanted and loved and appreciated and have something unique and wonderful to bring to the world. We can't wait to see it.

Christine

Beautiful and I think, I'll just leave it with that. Thank you so much for these words and all the stories you shared.

Wendy

Thanks so much for having me and for featuring Dragonfly. We cannot wait to see what comes of it.

Christine

Thank you so much Wendy.

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We also recommend you check out the QUEST Center for Responsible Research for lots more great content related to Doing Science Differently.

Sound editing and original music from Giorgio Cattaneo. You can hear more of his musical work on his Linktree page, just follow the link (https://linktr.ee/exoplanetrec) in the show notes of this episode. Or visit

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