

# Season 3.16 Bianca Drevensek

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## SUMMARY KEYWORDS

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## SPEAKERS

Carissa, Eric Benson, Narrator, Rachel, Bianca

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Narrator 00:00

This podcast is a project of the climate designers network.



Eric Benson 00:03

Hey, it's Eric. Welcome to another episode of Climify. I think this is the 16th episode for season three. And you might be asking how many more of these are there? Well, three, to be exact, just three. That may bring it tear to your eye, or a big sense of relief. Who knows. But the next two episodes are focused on empowerment. While these past two have been catered to climate entrepreneurship. In addition, we have a special back to school episode dedicated to the practice, and teaching of life centered design. Now, one of the great things about doing this show, outside of meeting wonderful people like today's guest, is hearing from you. And a while back, I got a message from a listener named Sam. He wrote, Hi, Eric and team, I wanted to reach out and say a big thank you for your podcast. I learned about Climify, and the podcast through Instagram. Your work is encouraging uplifting and inclusive. I'm looking forward to tuning in more. All the best, Sam. Thank you, Sam. And we're gonna do our best to make sure that we continue to bring encouraging uplifting and inclusive stories to you and everyone else. So if you have time and want to suggest a guest or offer some praise or even critique, please do, you can do that over on Instagram, LinkedIn, for my email that's listed on our website, which is [climate.designers.org](mailto:climate.designers.org) forward slash EDU forward slash climify. In addition, I have some also pretty cool news. So clarify as a big supporter of this group called Design Declares. And now we're featured as one of the case studies over on their toolkit with a bunch of other great climate endeavors. You can join their movement over at [designdeclares.com](http://designdeclares.com). And also check out the toolkit where you can find some inspiring case studies, and now on to our guest today. So I was introduced to Bianca by our CO producer, Bianca, Team Bianca. They are great. the Bianca we're talking to today is the CEO and founder of edge. They're creating a reliable supply of high performing recombinant proteins for cell based foods and cosmetics. What does that mean? Well, ah, I didn't know. But in the conversation today, I learned so much about the importance of plant based proteins in replacing our addiction to red meat in our diet, not only for our own health, but for that of the planet. Bianca is a climate entrepreneur. Oh, and she's also a designer. And she'll get into how her design background was vital for her not only

entering into this climate entrepreneurship space, but also keeping her successful in it. In fact, Bianca has a four step formula for being an effective climate entrepreneur. So you do not want to miss this episode. Without further ado, Bianca

B

Bianca 03:23

Hello, I'm Bianca, co founder and CEO of EDGE foods. And we are a biotech startup manufacturing recombinant proteins and growth factors for the future food. We are located in New York City. And you can find us that WW dot edge foods.co. Also on LinkedIn and Instagram.



Eric Benson 03:48

Bianca, welcome to Climify. It's wonderful to have you on the show today and excited to talk to you about your company and the solution sectors you're working on and food and industry and agriculture from the drawdown solution sectors.

B

Bianca 04:04

Thank you so much. It's an honor to be here.



Eric Benson 04:07

Yeah, me too. Yeah. We've been trying to record this for how long now?

B

Bianca 04:13

A few months. I honestly, it's a blur.



Eric Benson 04:17

Summer. You have a lot to do in your company. I'm sure a lot of it was my fault for being away for so long. But I'm glad we found today and I'm really interested in your company first. Can you talk a little bit about your company? And then I have a bunch of questions about that. After Sure.

B

Bianca 04:35

Yeah, I'd love to. I know that it could be a little technical and hard to understand. So essentially what we're doing is we're this biotech startup started in January 2022. And we're a b2b company, creating these recombinant proteins and growth factors for the use in production of automated meat and dairy. So you're probably wondering what growth factors even are. And you know, are these, as most, I imagined that they are the specific proteins and hormones that are essential for cells to grow. And the problem is that they're incredibly expensive to purchase

for, for a number of reasons I can get into it, but I don't think it's very relevant. So these growth factors are just one ingredient in the nutrient broth that is fed to cells, so they can survive in in vitro. In cellular agriculture, when you take with, say, cells out of a cow, you need to make sure that they're alive when they're taking out of the organism. And you also need to make sure you're feeding them all the same things that they're getting in their natural environment. So we're providing in one of those ingredients in the south node. And we're doing so in a much more affordable way and a much more efficacious way. Thus, letting the cultivated meat producers achieve a much lower cost of production, which would then be a transparent cost saving for the eventual customer at the supermarket. Let's see.



**Eric Benson 06:17**

Yeah, I have a lot of follow up questions to that. But one of them is that you were once previously a designer, correct? Correct. And I'm a designer, and I don't much understand anything you just said. You've pivoted into this entrepreneurial and sort of scientist role. Before I try to go into everything you just said, How did you get into the food world? Do you have a cultural connection to it? And what was what drew you into what you're doing there at edge foods?

**B**

**Bianca 06:54**

Yeah, that's a very valid question. I don't even don't even know where to start. I think my two passions have always been food and design. And I think my fascination more specifically with food started with my father being diagnosed with Parkinson's when I was about 12 years old. So in an effort to improve his condition, or to slow down the progression of the disease, I just became very immersed in a world of nutrition, or thinking of food as medicine. And so I decided to start my undergraduate degree at Syracuse University in nutrition science. So that's what I was doing for a long time. And I doubled that with advertising because I was using the design background in I guess, a more commercial way, trying to think about what a career would look like. And through that, it means there were very different programs. But in my sophomore year, a new department opened up at my university called Food Studies. And I had no idea what that meant. But I started taking classes in that program, the classes titled, agro ecology, which was my favorite or global ecology. Yeah, that's really exciting. I know. Global agri food governance, though. So slowly over time, I realized I was much more interested in the big picture implications of food production, rather than just nutrition. So then I decided to switch my major. And then it was Food Studies and advertising. And I guess really, for, for lack of knowing how to navigate that, career wise, I decided to more focus on the advertising and design side so that I went to UC Berkeley and studied product design, and then just went went that route. But sprinkled throughout my career were also a lot of different experiences in the food world. I took a summer and I don't know if you're familiar with it's called warping worldwide opportunities in organic farming is not actually great. I'm loving. Yeah, WW. Oh, f is the acronym and you can just turn it into a verb. People just say that they will have Yeah, I'm Wolfing. Yeah. Yeah, it's a great opportunity where you can in exchange for being a farmhand. Essentially, you get to they they provide food and housing and you get to its worldwide so you can work on a vineyard or in Portugal, or, I mean, really anything but I found a farm in Hawaii and I worked there for about four months. Farming on this six acre lot of organic fruits and vegetables, also managing their CSA, and I loved that, but again, I just I couldn't really I didn't know how to navigate a career more in that area. The product design He seemed pretty straightforward. And I really enjoyed

that, too, that I just stayed there. And I worked for a number of Silicon Valley startups, being a product designer. And most recently, I was the lead product designer at a big corporation in late 2021. And around that time is when one of my best friends from childhood named Manny, we just in conversation one day, he was telling me about his ideas about starting his own company. He's an amazing, he's always been the brains of our friend group. I've known him since I was about six years old. We grew up together in Miami. And he got his PhD in tissue engineering from Columbia University. And he was working at that time as a director at a consulting firm that focused on alternative proteins, that he would be hired by potential investors to kind of vet the technology of startups in this space to see or to gauge the value, I guess whether or not he thinks that investors should invest or maybe hold back, what have you. Through that experience, he got kind of a behind the scenes or behind the curtain look at the obstacles that all of these companies were facing. And they were repetitive, most of them were facing the same kinds of challenges. And thanks to his experience and expertise, he felt empowered to address those. So that's when you're starting to think about breaking up and starting his own company. And in my conversations with him is when he exposed me to the world that is still there agriculture, I definitely didn't stumble upon this on my own. But once he did, he really ignited that flame. And I researched and read everything I could any newsletter I signed up for any webinar, I watched it, anything I started coming up with the name and this is where my designer background came in. Because became little things like creating a logo and designing the pitch deck did though initial ambassadors and, and, you know, website, and really little things here and there. And that led to us organically just agreeing that we were going to do this, and we're gonna do this together, because we had very complementary skills. And we we know each other so well, I mean, for instance, them or I'll do better. Yeah, exactly. Better than we know ourselves. That was that was the beginning of edge. And since then we've just taken off.



**Eric Benson 12:30**

Yeah, when you were talking there, you talked some about your beginning stages. And to me, it was the design process, right, you did tons of research, you wanted to find out more about it, just like you would if you're working with a brand new client and another industry. And that's exactly what you did. So it answered the question I was going to ask you, which was, you know, how did the transition from design into what you're doing at edge vo foods complement or impact each other? And so,



**Bianca 13:00**

yeah, definitely, it seems like it did. Yeah, yeah. There's so much more overlap, too. Because a lot of just the market research and customer discovery you do as a business is exactly what you do in user research. As a product designer, you have these interviews, you do quantitative and qualitative research, you ask the right questions, and you make sure they're not leading. You want to find the problem and a solution. It really is a clippable.



**Eric Benson 13:27**

Yeah, for sure. And you had a lot of buzzwords within, would you call it the old protein industry? Would that be the correct terminology?

 B

Bianca 13:38

Yeah, yeah, I could break it down there. Yeah, let's



Eric Benson 13:41

go. Let's go back to edge foods. And then I want to talk to you about all the accelerators, and venture capitalists stuff that happened after you and Manny came together. So back to edge foods and some of the words you were using, can you can you boil that down to what I always do this my students like, explain design to your mom? Because sometimes it seems like our parents don't really understand what designers do. But how can you explain this to see normal, everyday person?

 B

Bianca 14:15

Yeah, of course. So all proteins refers to food ingredients, or even beverages that have protein derived from non animal sources. So protein as the macronutrient not necessarily associated with coming from animals, and meat, eggs and dairy, which pretty much makes up all the protein primarily coming from factory farm. This day and age has historically been a huge source of protein for people in high income countries. And that rate of consumption is going up in developing nations as well. Global meat consumption has doubled during the period of 1980 to 2002. That's a huge problem. And with that, there's the environmental implications and all the other consequences to that kind of production. So all protein is this emerging field of finding protein from non animal sources.



Eric Benson 15:17

would pee protein count in that because I know as a vegetarian I've been, and I have a lactose issue. I've been looking at proteins to eat. And I found pea protein. Is that part of that group? Or is that not?

 B

Bianca 15:31

You know, I also learned recently I had a lactose that, you know, yeah,



Eric Benson 15:34

it happened. I think, for me, like, I feel like it was 10 years ago, I was just like, why is my stomach hurt all the time? Was it the same for you? Or?

 B

Bianca 15:44

No, it's funny, my my mother, she started drinking lack aid without lactose, and I started seeing

it in the fridge whenever I would visit home. And I, one day just acts as like, why are you buying lactate? She's like, Oh, I found out I was lactose intolerant. And I looked at her I was like, man, don't you think this is something you should have told me that? You know, it's hereditary, right? Yeah. Oh, no, I didn't I didn't even think of it. Do that is when I realized that it was even something that I should pay attention to? And I yeah, I am. I've been drinking also alternative milks. And yes, that would be considered. So under the umbrella of alternative protein, there's three branches. There's plant base, there is precision fermentation. Which is I mean, fermentation has been used to develop foods forever. This is just kind of a an advancement within an issue about I mean, wine yogurt, a lot of cheese. Oh, yeah. This is using fermentation. And then the third branch is the lb otherwise known as cultivated, and that one is arguably the the newest



Eric Benson 16:52

and edge foods. Is that involved with all three? Or we're not?



Bianca 16:57

Yeah, no. Edge foods is only involved in the cellular agriculture. Not so the last last



Eric Benson 17:04

last one, the newest one. Right, right. Yeah. Yeah, you're I read recently, about the carbon footprint of we'll see just the beef industry and how it's not only leading to deforestation concerns in like South America, for instance. But I was reading how the carbon emissions from the beef industry is actually more than the travel industry. And the EU would actually make a bigger climate impact by just giving up red meat than I wouldn't be flying on a plane. And that was, I don't know, have you first of all, have you heard that before? Because you're in that industry, but for me, it was like, wow, being a vegetarian has been a good decision on my part.



Bianca 17:59

Yeah, I've heard it before. It's a popular one.




Eric Benson 18:02


So one thing that you were talking about, which I think about a lot as a designer is starting my own something, whether it be a business, I run a nonprofit, and it all came from design. And so when you were you met Manny again, or, or reconnected, I guess with one of your close friends about this company. You both entered into what would be called an accelerator program to start the business. Can you talk about that and how that accelerator program helped you get edge foods off the ground?



Bianca 18:11

 Bianca 18:41


Yeah, of course. So when we started, it was very initial stages. We we were both working full time and eventually transitioned from that. But we would we were working on this any moment we had, and we got her own little lab space here in New York. But at the time, I was still in Miami man who was here. I was in Miami, and not until we were certain we had been accepted into this accelerator to move to New York City. But besides the point, and we started pitching, we started talking to any investor that we could cold emailing LinkedIn research, exhausting our network, trying to find the right people. And we apply. There's so many, there's so many different incubators and accelerators and open source applications online. So we just submitted as much as we could, and Indy bio we submitted online on their website, and they got back to us. And the bio is one of the most reputable to it's up there with Y Combinator. But Indy bio specializes in food, or excuse me in the biotech space. So everything was done online. We had a lot of zoom calls and meetings discussing our business model our technological approach feasibility III, the agreement to term. And then we decided it was? Well, first they offered to have us on in their cohort. And we decided it was by far the best decision for us at that time. And we, we were part of it, it began in October 2022. It was a five month program. And it was incredibly helpful for a number of ways. I think it really just had, it was a catalyst for us. As a startup, it gave us capital, which is a huge one, some auditors don't, yeah, which is the bloodline of a startup, you need that. They gave us access to a lab based here in New York City, which is also difficult to find, it's very expensive. Yeah. They also gave us access to their network. Investors, mentors, advisors, anyone, anyone and everyone, also, their alumni network. So everyone else who's also graduated from this program, we were able to get in touch with if we needed to for any reason. So the whole network was very helpful. And so the structure of the program was, I had like a five month crash course with online classes, if you will, where they would have a different theme or call. And they would just teach us about or have industry leaders. Each is about those different topics. For example, there was one about pitching. There was one about finances. There was one about an experimentation plan for your startup, the technology side, and we were a part of cohort. So there were another seven companies in our cohort. And it was also great to have them because they were going through the same thing you were so there's a lot of camaraderie, and solidarity. Yeah,

 Eric Benson 21:58

that makes sense. community was built for sure.

 Bianca 22:02

Yeah, we were unfortunately remote at the time everyone was in their respective state or country. Yeah. So now now the cohort is in New York City. So it's great to see them be. We're also located in the BIOS headquarters here in New York City. We moved our lab to be here. But we also, since we're in the same space, we see the current cohorts group, and it looks even more fun that they're able to be here in person Tibet, you

 Eric Benson 22:30

know, just being back in person is so much, so much better for that. Yeah. Well, what resources strategies or approaches within the curriculum at Indy bio, did you feel was most valuable to you and edae foods?



**Bianca 22:49**

So I would say first and foremost, the access to capital and team and they're, they're massive. Yeah,



**Eric Benson 22:54**

we're I was gonna say, yeah,



**Bianca 22:56**

yeah. And the last space with bio prestudy, the work we needed to do. Yeah, and the kind of the tips and tricks I have just the basic, fundamental how to pitch, what should your deck look like to get investors interested, really, the if the secret to being a startup is to just and makes it like this very immediate, don't run out of money. You keep doing the work you need to do and you manage to do as much as you can and get more money, and stay afloat to keep your head above water. Yeah,



**Eric Benson 23:29**

that's and that's a huge challenge, right? Just to do something. It sounds simple, but it's not right. Yeah. Yeah. Well, what ways do you think the VC accelerator and Kohler programs in general, elevate your expertise in the world of climate?



**Bianca 23:50**

I'd say the accelerators taught me more about climate change, just by virtue of being around all of these passionate entrepreneurs. Every cohort was filled with these technical startups that were addressing a very unique problem. Most of its related in some way to sustainability. For example, there is one startup in the MIT blueprint cohort we also part of that was focused on addressing how unsustainable current concrete Manufacturing Practice practices are. Something I've never even considered. Yeah, no. Yeah, or or another company called Bio flop that is making plant based fur and taught us all about the the unsustainable and unethical practices of the fur industry than just by being around these people and seeing these things or coming up with and explaining to us the problems they're solving. I've learned so much. Yeah.



**Eric Benson 24:52**

Yes, you are learning from the other people in the cohort. A lot of these issues and I'm also wondering since this season has really Dedicated to women and what they're doing for climate action. I'm curious about how the programs you were involved with, in your opinion helped create more access for women entrepreneurs, especially in this area of climate.



 B**Bianca 25:18**

Both of the programs, they really did champion inclusivity and diversity. Half of our indiebio cohort founders were women. And I'm sure it includes their initial selection. But but to be honest, there were no special initiatives geared towards us women founders, that would have been nice. Maybe some they need more than Yeah, yeah. I mean, they, they supported us, but there was no specialized attention. I would say, it was more generally. You're, you're a founder now, and you're gonna be, you know, treated just like everyone else. Prometric. So

**Eric Benson 26:02**

good luck. Yeah. Yeah. So you felt there could be more work done there?

 B**Bianca 26:09**

Yeah, I'm sure. I don't know. So much of it was just on the being a female founder, or just generally speaking, feeling like being a first time startup founder in general is very difficult. And any type of guidance is much appreciated. Yeah. Yeah, I'm sure. And it's probably exacerbated by the fact that I'm coming from a very different background. Like they're mostly technical founders. Yeah. And most of the founders, it's so interesting to me, because most of the I was in rooms that I would never imagine. And there's, there's even just a personality, the difference between what a designer is like and what a scientist is, like, dealing with much different types of people. And since these cohorts were more catered to scientists, there was an emphasis on teaching them how to communicate their very technical ideas in a way that the general public could understand, versus the opposite with Manny and I were, I think my strength is actually doing that, internally taking his technical jargon, which for him, because he's just so involved in this type of, you know, a world that his baseline understanding, or his assumption for the general public's baseline understanding is so much higher than I think, is really the case. To me communicating that technical science has been such a strength of ours.

**Eric Benson 27:44**

Yeah, you mean you're doing visual communication? Right? Does Yeah. Are all the words that are relevant to all protein? And everything else? We've been talking about this season, the idea of a climate designer. From a design educator perspective. I'm thinking of the word climate entrepreneur, for you. How would you define that term climate entrepreneur? And do you think you are one?

 B**Bianca 28:15**

Definitely, I think to be in the alt protein space inherently makes you a climate entrepreneur. Everyone in the industry is a climate entrepreneur, I haven't met one founder who didn't mention the environment, degradation is a key motivator for the work they do. Being in this field allows you to feel purpose, like your efforts are actually working towards finding maybe not the solution, but a piece of the solution. And there's there's an intrinsic connection between

food and the environment. That can't be overstated. Our food system is completely dependent on the natural earth. And the damage we've caused by using these outdated models of production is making it so we can't continue to do so. So it's counterproductive. And yes, I would classify anyone looking to make agriculture's footprint smaller a climate entrepreneur.



Eric Benson 29:07

We'll take a quick commercial break here, and then get back to the conversation.



Rachel 29:15

Where do young designers see themselves at the intersection of climate change and innovation? And how can we teach that intersection in the classroom designers are problem solvers capable of imagining solutions for a more sustainable future? My name is Rachel suffer Ellie and I'm part of the climate designers New Wave team. In the past few years new wave has released two reports exploring students experiences of climate design, education, or lack thereof, and what they hope to see in their classes. Now we want you design educators to use this research in your classrooms. And this summer, we're giving educators a chance to talk to the new wave team directly, twice a month, the new wave researchers will be available to walk you through our findings. Answer any questions you have, and help you implement actionable project briefs directly into your classrooms. We'll also show you how to use our media kit to easily share the research with your students and how they can sign up to be a participant, head to [climate.designers.org/edu/new Wave](https://climate.designers.org/edu/newWave) to sign up for a call with the new wave team. Help us inform a new wave of design education, one that teaches every designer how to be a climate designer.



Carissa 30:23

Are you someone who loves the ocean climate solution, sustainability and marine biology? Hi, I'm Karissa marine biologist and co host of sustainability in the sea, a podcast for ocean people looking to find their way in ocean conservation. We sit down with wave makers doing awesome work to protect our blue planet. And you can listen to their story to help you build yours. Find us wherever you listen to podcasts.



Eric Benson 30:46

Well, from a climate designer to a climate entrepreneur, I'm excited to learn more about what you're doing. And I've been doing some digging, my co producer Bianca has been doing some digging on alternative proteins. And so we found a quote for you. I think it's from the Center for Strategic and International Studies. And they had this publication called The Future appetite for alternative proteins. And we thought we'd ask you for your take on this quote. And they right, all proteins stand to bolster sustainable and efficient domestic protein production that is more resilient to unpredictable economic shocks. For climate change the list of core benefits from shorter supply chain equaling fewer inputs, so then producing fewer greenhouse gas emissions. And there's some more, but the big thing there is we wanted your hot take on how do you

think? Or how does edge food disrupt that highly saturated startup industry, in addition to the benefits, and the impacts, that you think that edge foods is contributing to the climate discourse? At

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Bianca 32:06

edge, what we're doing is you're creating this enabling technology. So we're creating better ingredients to go into that nutrient broth. And as a b2b play, we're helping these cell based food producers have better self be, essentially. And we're doing it better than our competitors. Because we're using a more robust expression system we've created that allows us to virtually eliminate downstream processing. And that's a bit technical, but essentially, we're creating a more nutritious and affordable sell food to bring down the costs of making cultivated meat and dairy.



Eric Benson 32:42

So I guess like the I've watched so many episodes of Shark Tank, and and that's when I think of like founders. That's what comes to mind, I think, yeah, I think about that word disruption. And I've seen a few episodes where there is all protein companies. I'm curious, just personally, like, how do you feel like your design background has helped you become a disrupter?

B

Bianca 33:10

I think that this is such a unique space to be in right now. Because it's so new, that there's a lot of misunderstanding, there's a lack of knowledge in every aspect. And I think that it's really going to matter how its marketed to the general public in terms of the rate of consumer adaptation. And I think that that's, that's going to be desired that it'd be a huge component or an influencer in that people are attracted to things of course, people are attracted to things that look good and are aesthetically pleasing and, and design also influences the trust or legitimacy warranted to a brand. Oh, since this is so new, and there's a lot of criticisms associated with things like cellular agriculture. I think that design is going to be an A very important aspect to the success of these new markets. There's I can use an example right now, upside food is one of the most well known at this point, because they receive VA us upside through okay. They received USDA and FDA kind of clearance to allow them to start selling their products in the US. And they were previously called Memphis meats. And they had a very different brand voice. They shifted it and did this rebranding and now they're called upside foods, and now their imagery and visuals are much more friendly and colorful and almost, I want to say no wait highlight. And I think it's because they've realized that that's going to reach people better. And it's going to sit in a way that will benefit them. Just with brand voice.



Eric Benson 35:14

Yeah. Yeah. That That reminds me of something I saw recently, where there was an article about lab based alternative proteins, right? Yeah. Like,

B

Bianca 35:26

labeling is so important. Yeah.



Eric Benson 35:29

Exactly. And I was thinking about design at that point, and then I think you just nailed it for me. Is that that brand voice, like the importance of the designer, in being able to communicate visually, that, yeah, it's grown in a lab. But that's good. It's okay. It's actually maybe better for these reasons. I think that's a huge design challenge. Because I think the first thing that I thought when I heard about that was you. Yeah, that was the first thing. But then again, I'm, you know, I'm drinking pea protein in my smoothies, and why am I okay, you're doing that, but not investigating kind of the work that you're doing at edge foods and eating that?

B

Bianca 36:15

Yeah. It's curious, just Association. The vast majority of food you eat nowadays, is not it made in a facility it manufactured. It's not growing that way.



Eric Benson 36:28

Yeah. For sure. So you're also a climate designer, as well, as a climate entrepreneur? I would say if you're doing all that design work. Have you ever had to with your company get into? You mentioned the FDA? Right. And I'm assuming they're a challenge to work with, because they have their safety and security? Can you talk about your experience working with patents and the FDA or other sort of regulatory requirements that you that you need to align with to scale? Your, your company?

B

Bianca 37:02

Yeah, yeah, we have we filed for a few patents. And that's been pretty seamless. All I would say there is that I think it's hard for companies in this space to have to rely on the VC model, because those investors are focused on maximizing their return on their investment. And these technical sciences are hard. But frankly, they're difficult to create. And they take time. So it puts unwarranted pressure on the team to do things faster than they're able to. So I do think generally speaking, there needs to be more academic collaborations and government funding and things that grants for example, things that will allow these teams that are so focused on creating these novel technologies, the freedom to focus on the technology, rather than worrying about the concerns that come along with taking invest investors money. Yeah,



Eric Benson 38:01

you gotta pay it back. Right? That's the Shark Tank. No.



B

Bianca 38:04

Yeah, it is. It can be a shark tank. Definitely. Yeah. And in terms of regulation, it's still a gray area. We know that the end manufacturers the upsides, for example, who will be selling their products in supermarkets, they definitely need regulation and certifications and the right labels, etc. But being a b2b play, it still hasn't been delineated exactly how the regulation is going to work because we're an input in their products. So whose responsibility it is to get the regulatory approval in, in our case is still up for grabs, we are speaking to a regulatory consultant who told us that he was able to broker some type of negotiation between a company like ours and the company's customer and somehow they had shared the costs but I think it was implying that they had some type of agreement that it you know, is particular to their situation. So there is no guide Yeah.



Eric Benson 39:17

Well, it's looking at your your website. And speaking of design, you know, I really do like the packaging you've been working on. And it seems to me when I look at it, it seems very friendly is there's a lot of gradients and also the sort of natural organic shapes throughout Which to me I guess makes me feel a little bit more comfortable with it. And one thing that I don't think we've gotten into yet was I know that one of one of the things that you do is you're making this alternative protein not just for people to eat, but I saw there's something around the cosmetics industry can you talk more about With that,

B

Bianca 40:00

yeah, happy to, we decided to try and diversify our business model, since a lot of the things we were manufacturing were applicable also to the cosmetic industry. Some of these new recombinant proteins and growth factors are already used in a number of skincare products for their skin, rejuvenating and anti aging properties. That's, that's a completely different industry. So we had to go back to the drawing board to try to figure out how one becomes a supplier of cosmetics ingredients and those trying to figure that out. And it's also there's also a marketing and then drum in the cosmetics industry as well. But I don't think we have time to get into that. Yeah, that's a



Eric Benson 40:45

whole other that's a whole other show. Right? What's going on cosmetics world.

B

Bianca 40:50

Really, though. It's fascinating. Because so much, so much of it is dependent on consumer understanding of these otherwise very complex sciences. Yeah, so we decided to diversify and, and really play up the platform capabilities of the technology, and the bio process we've been developing. And that is also applicable to the biopharmaceutical industry. So it's tissue engineering, came from pharmaceutical industry, they're the first ones doing these things that much higher cost and much higher margin, doing drug therapies and things of that nature. So

it's like taking that science and making it as cheap as possible for these commodified products. Because we're not selling pharmaceuticals at insane prices. We're trying to sell things like food and cosmetics.



Eric Benson 41:45

Yeah. Well, this is like a really fascinating and, and I think important space, as we look at drawing down our greenhouse gas emissions of right, I mean, we're gonna have to have protein, we have to eat it, but we can't have so much reliance on meat for that in the future. And so, I guess, how are what do you see happening next in this space? In the next five years?



Bianca 42:17

I think that there's been a lot of advancements, people didn't expect the USDA and FDA to give green light as soon as they did. And, of course, there's a lot of criticisms with the feasibility of bringing the science down to reach cost parity with conventional livestock protein today, since it is pretty affordable, but it's so affordable, we're not paying the true cost. Yeah, it's largely subsidized. And there are the environmental implications that make it harder to make more in the future. But what I think is going to be happening in the next five years would be some of these players bringing their products to market and having to deal with the education and the right. marketing and brand boy, I think before, I mean, even the first part of products coming to market aren't going to be 100% sales at all, they're going to be a very small percent cells. And if they're what's called hybrid products, so they're gonna be some cells, but also mixed with plant proteins. That'll be that's a cultivated cow, or chicken meat, mix with your pea protein, your mung bean, your soy bean,



Eric Benson 43:35

etc. Yeah, it's kind of like the the energy mix, we have to have some coal in the transition, but we're gonna have to go



Bianca 43:42

exactly, yeah. And I think that's so necessary. There's another company called Oh, meat, for example, who are making a, they're using the plasmid of from cow blood, manufacture their cultivated neat, that they're still involving cows somewhat, although they don't need to kill the animal. But, but some people criticize that because there's still dependency on the animal, could it's still a step in the right direction. And I think it needs to be incremental, that way to make long term change, it need not be zero to 100, you could do these smaller steps and in their model as well, they're they're involving the farmers, which I think is a huge thing in this field. They don't, I don't think there's been enough discussion around the labor implications or about the trends just with that transition looks like.



Eric Benson 44:34

Yeah, and I think at the same time, as this show is, is geared towards our design educator

mean, and I think at the same time, as this show is, is geared towards our design educator, audience, I think design has a big role to play and what you just described, right? Because is it going to be like for me as a vegetarian, would I be okay, eating this alternative protein with cow blood? How can design play a role in making me feel better After doing that, when I haven't eaten anything related to cow in, like over 20 years,

B

Bianca 45:05

right, yeah, I mean, that's a huge debate whether or not these things can be considered, you know, the difference between labeling something animal free or cell based or vegan. Labeling is a really big department.



Eric Benson 45:21

It's a conundrum. And with with Edge foods, this this whole season has based on the project drawdown solution sectors. And I'm curious for you on how you see edge foods really aligning with some of the, you know, greenhouse gas drawdown solutions.

B

Bianca 45:44

Yeah, looking at the project drawdown solutions, I definitely think we're a part of the shifting agriculture practices effort



Eric Benson 45:52

under the food. I see that too. I definitely see that.

B

Bianca 45:55

Yeah. I mean, again, we're such a small piece of this puzzle, but we're doing our part.



Eric Benson 46:00

Yeah, you are. And you are an entrepreneur, which has a very high failure rate for for what I've been reading, right. And I know there's been a lot of people that I know who come from a design background, like you who want to be in that entrepreneurial space, whether it be running their own studio, or turning something into bringing it to market. So I guess what I'm wondering because I'm terrible at entrepreneurship. And this is why I'm an education. And I'm wondering if you have like a survival toolkit for future climate entrepreneurs, that you could share with us today, what things do we need to consider, so that we can also build something for a better future?

B

Bianca 46:57

Bianca 47:57

This is a great question. I don't I mean, looking back, I think I was a little naive. In considering what, what it meant to be starting a startup, which is probably for the best things to think if I knew I would, I wouldn't have done it. It's, it's a lot, but I think it's fruitful and definitely worth it. So I think I'd start by just reflecting on what surprised me most of my journey thus far, in my mind goes to a few things. First off, Getting Started isn't nearly as difficult as Ironman imagined, you honestly, you just do it. You don't need much. And in the VC startup world, there are just a few things required. You need, obviously a great idea. You need evidence to your ability to execute said idea. Need research, proving you are solving a real problem and a pitch deck. So you need 123? And then number four is just showing one through three in an aesthetically pleasing way.



Eric Benson 47:55

Yeah. I remember that first point you made about being a little naive. I think that even might be an important thing, because I remember, gosh, being younger and naive, and then not having a lot of like financial responsibilities, I guess, or other life responsibilities. And I think that helped me be a little naive to where I jumped into starting my own studio. Yeah, it failed. It failed miserably. But I think that's the high failure rate. Right. And but I don't think like you said, If I would have known, all the things I know now about that. I probably would have been okay, I'm just gonna stick with the right 401k At some company. Right.

B

Bianca 48:44

Right. But at the same time, even Honestly, even if we fail, I wouldn't take it back for a second. Because of everything we've gained on the way I've learned so much.



Eric Benson 48:54

Yeah, I bet. Yeah, one of my favorite things that a professor told me was to just to fail, like you got to try. And that's important part of being a creative person, right, as you learn from what you failed at, and you get better at it. And I think yeah, the Mueller in your space.

B

Bianca 49:12

Yeah, definitely. It's a there's a fine line between stupidity and bravery at the same time, matter.



Eric Benson 49:20

I like that. Yeah. Well, we're coming up to my last and most the time favorite question, and I'm interested in what you have to say here. And that is, everything I've been asking you I sort of built up to this and I'm asking you to switch shoes with me. You know, you're a design educator for a semester or five or six weeks and knowing what you know what what what would you assign to design students? What kind of problems or projects would you like them to tackle?



 B

Bianca 49:56

There's going to be so much opportunity for designers in the operating space. If I think it's under prioritized right now, since there's more focused on the technical r&d, but it's just a matter of time, more and more companies are making advancements towards the regulatory approval. So next we'll come consumer awareness, consumer awareness, and education. I think the general public is resistant to the idea of proteins because they don't understand the benefits, or the science behind it. So change can be scary. Oh, yeah. Good. Yeah. But that's where design comes in. Because it can make a world of difference. There's the immense influence of branding and packaging design, like you're saying, are in packaging. Yeah. Yeah. And when it comes to what influences somebody's decision making at the supermarket, what makes you grab one over the other?



Eric Benson 50:51

So beverage money, sometimes it's the packaging, right. But

 B

Bianca 50:54

yeah, I mean, first and foremost, if I'm being completely transparent, I think the most, if cultivated meat and cultivated dairy, can check the boxes of affordability and taste. Everything else will will follow. I think those are by far the most important things.



Eric Benson 51:11

I agree. Yeah. If it's affordable and tastes amazing, then. Yeah, no brainer.

 B

Bianca 51:18

So what I think I would do is I'd assign a project where the students are assigned real startup partners, because there's so many in the space that could use the help. And it would give the students Yeah, it would give the students real world experience. That to address the lack of understanding surrounding their innovations. I would have the students design the website, for example of an existing protein startup, or design some type of educational materials, online education center infographic, visually explaining the science or benefits of their approach. I mean, I think the options are endless. Yeah.



Eric Benson 51:59

And there's a lot of these spaces out there, like Indy bio said food hack. Is that another one? There's also the engineer it. So there's a lot of places where people can connect with.



B

Bianca 52:12

And yeah, and I do think that there's a, there's a shortage of designers in in this area, because it does require some type of basic understanding of science. And the ones who are in this space. All right, usually creatively inclined,



Eric Benson 52:31

yeah, this is why we need you as an educator. So you can teach these designers to be in this space. Right? So you have another career option here if you need it.

B

Bianca 52:41

Yeah. And if any of your students want to reach out, I'm happy to talk to them, too.



Eric Benson 52:45

Oh, well, awesome. Thank you. It's been an honor talking to Bianca. And before we go, I want people to have a chance to hear again, where we can find you online.

B

Bianca 52:57

Yeah, of course, Eric, it's been really my pleasure. It's been refreshing to just have a conversation about these things. And if anyone's interested, you can learn more about the company at [WWE dot edge foods.co](http://WWE dot edge foods.co). There's also Educo on Instagram, and LinkedIn. We also have a Twitter but it's not very active. And also feel free to connect with me personally on LinkedIn.



Eric Benson 53:24

Thank you, Bianca. And it was been a great almost hour with

B

Bianca 53:28

you. Likewise, thanks.



Eric Benson 53:31

This podcast is CO produced by Bianca Sandiko and me. A big special thanks to Ellen Keith Shaw and Christine Piolet for their gorgeous work on our new branding tool. Batul Rashik and Mark O'Brien for their continued design now, Brandee Nichols and Michelle Nguyen, for their strategic guidance and always supporting me on this podcast. If you enjoy the work we all do here and you have a spare minute or two. We would truly appreciate it if you left a rating and

review over at Apple podcasts. The more folks that review our program, the higher the algorithm pushes up Climify high in the search results. And in turn, the more likely we all can learn how to become climate designers.