



Season 2 - Episode 5 “Everyone has something to teach you”

Welcome to the fifth episode of Season 2 of the NJFPA Stradley Ronon Food Forum Podcast. In this episode, [Craig Peck](#), Partner at Senior Manager of Business Development at [Rutgers Food Innovation Center](#), speaks with [Jessica Schwabach](#), co-founder and CEO of [Sundial Foods](#). They talk about cutting edge technology, plant-based foods and unexpected entrepreneurship.

Guest Bio:



Jessica Schwabach is the CEO of Sundial Foods. She holds a bachelor’s degree in Molecular and Cell Biology from the University of California, Berkeley. She combines her love of scientific exploration and her desire to help food systems sustainably meet protein demands to create healthy, innovative meat alternatives.

Listeners will hear:

- How a chance meeting and class project turned into cutting edge technology and a new business.
- The strength of academic incubators in fostering innovation and entrepreneurship.
- Technology and food innovation are exciting, but the foundation of a strong company is people.
- How Sundial is building their company and culture of innovation.
- The surprise of coming from the California biotech world to the practicalities of food safety at Rutgers FIC.
- Advice she would give a new entrepreneur and where Jessica gets the latest news on plant based food industry news.

Edited Interview Transcript

Craig Peck 0:52

Welcome to the next episode of The Stradley Ronon New Jersey Food Processors Association Food Forum. My name is Craig Peck. I'm the Senior Manager of Business Development at Rutgers Food Innovation Center. I'll be the host for this episode of the Forum. You may remember hearing about the Food Innovation Center from my colleague [Nolan Lewin in Season 1, Episode 3](#). We help entrepreneurs from concept through commercialization, we work with large companies and small and we think the Food Innovation Center is an industry asset, pretty unique in New Jersey.

I'm thrilled today to be able to introduce one of our newer clients who's come to New Jersey from California to work on her product with us. I can't tell you how exciting it is to be able to work with entrepreneurs, especially entrepreneurs like the team at Sundial. When they're working on their product, it really invigorates the entire building, and then hopefully, the entire industry. So I would like to introduce Jessica Schwabach, the CEO of Sundial. Thanks for being here, Jessica.

Jessica Schwabach 2:03

Thanks, Greg.

Craig Peck 2:04

Maybe to get started. You could briefly tell us about your company, and the product that you're working on. Personally, I'm always interested to learn from people about their earliest food memory. I think that's pretty telling about people, but no pressure, and some of their food influencers. But all of that in context, as a way of introducing your company and what you're working on. Then we can talk for a little bit further. So I'll turn it over to you.

Jessica Schwabach 2:32

For sure. That sounds great. Ironically, I think the first thing I should mention is I have a very strong food memory associated with Thanksgiving. Pretty early on I remember seeing a tofurkey in a grocery store and asked my dad if we were going to buy that because he's been vegetarian for my entire life. I very clearly remember him saying, No, vegan meats are probably the worst thing ever. We're definitely just going to eat vegetables. We don't eat those kinds of products. And so I grew up assuming that alternative meats and plant based meats are pretty gross. I never ate them, never had any urge to eat them. I've been vegetarian since I was 14, vegan since I was 18. So the fact that I now have dedicated my life to making plant based meats is always funny to me. Part of that is that we're hoping to make them better.

So initially, this all started when I was a sophomore at UC Berkeley studying molecular and cell biology. Being as I mentioned earlier, a vegan, I saw that there was a class offered by the Industrial Engineering Department at Berkeley, centered entirely on alternative meats. I thought that sounded pretty fun, I didn't really know what it was

about. But as a vegan, I thought it could be cool to learn, maybe we'll figure out how to make the impossible burger or something like that. In this class, I had the fortune of being randomly placed into a group assignment with a girl named Siwen who was actually finishing her PhD at the time in plant and microbial biology. The professor had basically begged her and another PhD student to sit in the class and provide some guidance to undergrads.

What happened is Siwen and I got way too excited about our group project in a plant based meat space, and decided that rather than pursue our respective careers, in medicine, and academia, we should found a company together, and that's what we did in the summer of 2019. What we're trying to do at Sundial is revamp the plant based meats industry. There are a ton of products out there and have been for a very long time. Mostly [unclear] products, things like chicken nuggets or burger patties with a certain homogeneous texture that you come to expect from plant based meats. A lot of these are made using one industry process, high moisture extrusion, basically taking protein isolate, water and some other things, running it through this machine under heat and shear in order to generate a fibrous structure. There's some limits to extrusion, it makes it a bit more difficult to generate very specific textures and heterogeneous textures.

If you want to create a structured product, for instance, a steak or something like a chicken wing, with different muscle bundles of layers and thicknesses, it can be quite difficult and involve a lot of heavy processing. This can also lead to the use of more additives that our consumers probably don't want in their product. So a lot of what Siwen and I were doing was trying to go back to the basics and figure out a new processing method for creating not only that fibrous bite that you want in an individual piece of meat, but also different 3D structures and layers, and ultimately, whole cuts of beef. We've been working on Sundial for a couple of years now. And we're getting ready to launch early next year. So pretty excited about that

Craig Peck 5:19

Amazing encapsulation of your company, especially around the process. And the chance meeting of you and Siwen, who we know as well, who is a powerhouse, much like yourself. If I back up for a minute, the technology and the process aside, the two of you are now sitting in a room, and you've decided, hey, let's build this company. Great idea. What are some of the steps that you took initially to get things formulated and moving forward? Maybe you could help us with that, because a lot of our listeners are probably in the idea stage and that jumping off point is pretty important.

Jessica Schwabach 6:00

That's an interesting question. I think we didn't really launch a company so much just stumbled into creating one. We knew that we had an idea we really liked and wanted to pursue, at least on the side, doing experiments in someone's kitchen, and messing around when we had free time and seeing what could be possible. Both of us coming from scientific backgrounds, with no belief in either of our ability to be entrepreneurs, we would not have done it without the university pushing us a little bit. They just gave us access to open resources at UC Berkeley, specifically, there's a center for entrepreneurship. There's a couple of folks or mentors who will talk you through the

process of doing very basic things like maybe you should sit in on this law class and see what incorporating a company actually means. Should you incorporate in Delaware or California and what were the differences be.

It was all very daunting and terrifying. But we kind of took it one step at a time without looking too far ahead at how much exactly we had to do. That led us to found Sundial and just keep going from one step to another. Incorporating and having legal counsel and starting to build a business, and then even hiring our first employee and getting the company to really grow into something real. So it's been a super exciting process. I think the thing that's helped Siwen and I the most has been not being afraid to ask for help from everybody that we meet. People are super kind, everyone knows more than us, or we like to have that as our opinion. So we like to learn from everybody around us. I think that it's just helped us grow also and been the best crash course education, how to do business. So it's been a lot of fun.

Craig Peck 7:30

I would beg to differ that everyone knows more than you. But I appreciate your humility. I think that's a hallmark of all of the great entrepreneurs that we work with are confident enough and able to ask questions and take feedback. It's really one of the things that I admire about the culture of your organization, having been around your team a little bit over the last three or four months. How do you instill that? How do you create that? It doesn't just happen. As part of your hiring process, what do you look for in people as you're building your team? Because it's getting larger and larger and there's some great opportunities for people with Sundial, how do you work through that part of it?

Jessica Schwabach 8:12

That's a really great question. I think it's something we work with, and struggle with every day. The most important thing, what we think for Sundial is that the technology is cool, the innovation is cool. We're very excited about the plant based chicken wings, but the people are what are making the company. And so that's definitely the most important thing we can build what we want to foster and we know it's very idealistic, but we're doing our best to achieve this in a super open roundtable environment. Where everybody who's coming into Sundial is the resident expert on our small team at the certain thing they're coming in for. We really respect and value their opinion, we let them lead different actions within the company, and they directly contribute to and guide where we're going in the future. I think this is something where everybody in Sundial is able to step in and get their hands dirty and be part of building the company. It's not just about doing some kind of task every day. And it's kind of intoxicating, we all have a lot of fun.

Craig Peck 9:04

Yes, you do. It's great. We love having you with us because we have fun being a small part in what you're doing. So some of the more entrepreneurial questions if it's okay. Without sounding trite, what are the obstacles that are most surprising to you, as you were beginning this journey? I'm sure on some level you thought as you're going through your entrepreneurial sessions, you know, yeah, we'll be able to establish that and then we'll establish this. Knowing you a little bit

I'm sure there's a scientific method to the way that you're building your company, in terms of steps and systems. What's been most surprising up to this point in your growth?

Jessica Schwabach 9:49

In terms of building the company, I actually think the corporate structure and at what stage and what step we should build has been an interesting struggle. Because when we look at companies on the surface from outside, as just students, it looks like everybody has a pretty similar structure. There's a boss, then there's maybe an R&D side, maybe there's a business development side, and then it goes from there. But we've started to see that depending on where we need to grow with limited capital, we have to push certain areas and keep everything in balance at the same time. So that's been a process that I think is driving whether our company becomes more of an R&D company or more of a business and branding company. Ultimately, we do want to sell products that are under Sundial's name to consumers. So trying to balance this with the fact that almost everything we've done so far is develop our product has been pretty interesting and requires some new talent. It's also cool because we get to build the team.

I think in terms of challenges that Sundial has faced, just in trying to move forward with the company and one that we were expecting the least as scientists with no food experience was food safety. We did not realize how much goes into that, and how intense the process is from every step of the way, from procurement to equipment to the actual manufacturing, and of course, making sure that the product that comes out is safe and well tested. This is something that we really did not know what we were getting into just how much goes into launching a food product. So we were very impressed by it, and we definitely look at grocery stores in a different way now.

Craig Peck 11:15

I would imagine! It's interesting that you say, this difference between being an R&D company and being a consumer driven company and what that feels like. The key, I would think, is innovation. One of the questions I was thinking about with Sundial is how do you plan on integrating innovation into all of your future growth, in terms of additional [unclear], in terms of refining the existing process? Where do you see the biggest potential to continue to innovate?

Jessica Schwabach 11:49

That's a really good question. Also, always open to advice on this point. For us, at the risk of sounding cheesy, the very base of everything is that everyone on the team is an innovator in some way. No matter what the role is, whether it's operations or supply chain, or engineering, that person has the ability to innovate and to change something within the company, make things more streamlined, or more efficient, or propose something entirely new. That's something we really welcome because I think it's the best way to grow.

In terms of R&D for new products that we hope to create, we're actually hoping to get back into some kind of collaboration with the University. Right now, we've worked with UC Berkeley before, at the very beginning of our time, and of course, Rutgers now

through the FIC. So that's something we're exploring, where we feel like as a very small team, it can be useful to work more closely with a larger academic team. Just like we learned from people in the food processing industry, we can also learn from researchers in academia around food science. And so we hope that's something that Sundial can use.

Craig Peck 12:46

A really interesting answer, because I know personally, and I even work in an innovation center, we don't see innovation as broadly as we should, or could. Innovation, as you said, can really come in a lot of different ways. So really interesting, the way that ties back in with your culture. The whole company flows together through some of those ideals that you have. So another entrepreneurial question, which probably gets asked on podcasts like this across the country. I know you've touched around, taking advice and being able to take it, but I'd like to turn it around and say, what advice would you give to someone? Some of our early stage entrepreneurs, which you'll probably be rubbing elbows with, in our building or already have? What do some of those conversations sound like, when people come to you and say, wow, how did you get to this point?

Jessica Schwabach 12:52

I have to give a disclaimer that I'm not the best equipped person to give this advice, because I think it varies a lot, from person to person, and I'll have my limited experience. But I really think that the greatest thing that you can do, if you want to get into anything, whether it's entrepreneurship, or something else, and you're not sure how to start, is just talking to everybody you meet about it. Someone's going to know something, and someone's going to be able to guide you forward, give you a tip, help you out. Maybe take some time out of their day, just to teach you a little bit about whatever it is that you're interested in. That can really snowball into going in the direction you're looking for. I know that's a super corny answer. But really, I think, just reaching out and speaking to everybody, no matter who they are, no matter what they're doing, you'll learn something. And that's super valuable.

Craig Peck 14:22

I think it's the foundation of what you're building there, is this inquisitiveness and in all facets of your business. This is the most sincere way to operate. I think it reflects in the way your team is built and the questions that you ask and it will drive your success. What are you looking really forward to as far as the challenges that way ahead? Now you're going to be commercializing and what that's going to look like and continuing to innovate. When you're laying in bed at night, what is the big challenge that you're thinking of and then how excited are you in the morning to get up and take it on?

Jessica Schwabach 14:56

The scariest thing that I think we all panic about 24/7 but are also super, super excited about is the launch of the product, how that's going to go. There's so many technical challenges and supply chain challenges before we get there that we're all working on

every day. We're super motivated to get that done. Then also how consumers are actually going to receive it, what's going to happen? Will they like the branding? What if they hate the product? What are we going to do? It's what I've been waiting for this whole time. But it's also something that's a bit terrifying, because it's the first time that someone else is really going to get road test it.

Craig Peck 15:24

You've done a little bit of work with the product, I think it's safe to say that you've done a fair amount of consumer testing now, what kind of feedback did you get? How excited are the consumers about the product, and what was some of the specific feedback that you got? Maybe an example of how you use that feedback to improve the product.

Jessica Schwabach 15:43

So back in fall 2020, it was the first time we ever sold any Sundial product. This was about a two month test launch that we ran out of the country, it was in Europe. This is in about 40 grocery stores. We had a retail product similar to Sundial's wings today, but instead they were chicken drumsticks so a bit larger. They had the three main aspects of skin, meat and bone with really an emphasis on that realistic appearance and texture. The feedback we got from running this test was super interesting. What we discovered is that consumers, especially meat eaters or flexitarians, they really do like the appearance of a whole cut of meat. They're attracted to that concept of it being 100% vegan. Vegans and vegetarians maybe are more like my dad and not so excited about plant based meats and rather stay away. That's all right, because then we learn who we're targeting as well. What we saw in terms of the product was that back then folks said the inside is a little bit too dry, a very common problem for plant based meats and something we've been focusing on. I know you've also tasted the product.

We've been trying to work on getting that more dense and complex inner texture on the product with these different fibers that hopefully hold moisture in as well. They don't get that dryness on your tongue. Actually, the favorite aspect of consumers for the product is the plant based skin. Something that's super important in the meat chicken eating experience, as well, of course, is the crispness of the skin. There's wing eating contests that are super focused on this aspect as well. So the reason we're creating these chicken wings in the US instead of going with our original drumstick product, is because we really want to focus on the skin. Make it the most exciting thing about the product that the consumer gets in every bite and that it's something that really creates a complex and enjoyable experience.

Craig Peck 17:17

So amazing answer because I think when everybody bites into the product, and I'm lucky enough to have had a bite, the first thing that pops into your mind is the skin. It's really amazing, really amazing. Jessica, I think the most important question on everybody's mind is when's the product going to launch? When can we all have a taste?

Jessica Schwabach 17:39

The product is launching in spring 2022, stay tuned for the exact locations. We're going to be launching, most likely with a limited partner in the Bay area of California, but also the New York metropolitan area. So you'll have to check out [our website](#) to see exactly what those places are going to be, but we should know within the next few months.

Craig Peck 17:56

Awesome, great, exciting, thank you. It's such a wonderful story. I'm so happy to be able to talk to you. Where do you stay dialed in to what's happening in the food industry? It's easy to be working on a project like yours and a company like yours and not really look up and see what else is going on. So where do you really find your information on what's happening with food?

Jessica Schwabach 18:22

My answer might be biased towards the vegan food industry. Normally I read [Veg News](#) and [Vegconomist](#) are my favorites and also look at their [Instagram](#) and websites pretty often. Also [Live Kindly](#) is a pretty great resource that covers everything. It's also super interesting for us to follow innovations in the international community. Because we like to see, for instance, a Swiss grocery store just launched a whole vegan egg that has the white part and the yolk in that structure, which is super curious. I don't think anyone in the US has that yet. It's always just curious, but those were all vegan answers, I need to think of a non vegan one.

Craig Peck 18:59

Makes perfect sense to me. I'm going to track some of those down. I know you're a recent member of the New Jersey Food Processors Association. I'd love to get your perspective on an industry group like the New Jersey Food Processors Association, and how you think you can benefit from being a part of that. What are the learnings that you can continue to get from industry experts like the members there and how do you think that will work for your future?

Jessica Schwabach 19:31

It's an interesting question. As Sundial, we've been part of a couple of different communities or organizations focused on our specific business topics, but it's not always food processing. Now that doesn't quite make sense. But as a venture backed company, for instance, we've been very close with the tech scene in San Francisco, through Indy bio, which is a Bay Area biotech accelerator. Learning from that group of mindsets on how to run a business has been something that's directed a lot of Sundial things like open innovation, and how we should handle fundraising and how we should handle growth. A lot of that comes from these people we speak to in the Bay Area.

We then spent a lot of time as mentioned earlier in Europe working on doing our initial test launch with a product. That was really a gritty, hands on, we have to learn all of the steps for safety that we need in order to launch a food product and all of the different

steps of processing and manufacturing, how we'll do procurement. This was really our first glimpse at what education for a food company as opposed to a tech company should really be.

In New Jersey, now that we've moved here, September of 2021, what we're really seeing is that, in order for us to build a strong and successful company, yes, there's going to be an R&D arm, and there's going to be an office arm that we need to be strengthening. We are probably still going to be growing that pretty quickly. But really, the strength of Sundial, what we're actually going to be doing is selling food products, right? So there's a lot for us to learn there. I think that's where having all of these experts around us who are again, willing to talk to us, at the risk of repeating myself, who are willing to help a lot when there's so many areas that we don't know anything about. Even things like how should we be planning lead times for new equipment? We're able to learn a lot from this specific group of people and hopefully advance Sundial as well.

Craig Peck 21:12

Thank you very much. It's a wonderful answer. The common theme throughout was your ability to ask a lot of questions. I think if there's one thing I learned maybe is to ask more questions of people. So I thank you for that. Try and learn one thing a day. That was my thing for the day. Jessica, thanks again, I can't tell you on behalf of everybody at the Food Innovation Center. We love having your team there with us. We look forward to being a small part of your success. Thank you for taking the time to be interviewed on my first podcast ever!

Jessica Schwabach 21:45

It's pretty cool. At Rutgers we're really learning a lot and having a great time there. So thank you as well for having us.

Craig Peck 21:51

You're welcome, Jessica.

On behalf of the New Jersey Food Processors Association. We thank you for listening to this episode of the NJFPA Food Forum. For more information, you can visit us at www.njfoodprocessors.org. If you have an idea for a future episode, please email us at help@njfoodprocessors.org. We would love to connect with you and make your story and your experience part of this series too.