

Hormel Foods - Our Food Journey™ Podcast
Episode 4 - The Science of Protein

Francisco Parada-Rabell: I think we're living in an incredible, amazing era right now, where people have instant access to information and research at their fingertips through technology. People are more informed and that sets a trend of looking for food items that are better for you.

Ethan Watters: Welcome to Our Food Journey™, a podcast by Hormel Foods. In each episode we speak with people making a difference in our food system. Functional food has been a major trend over the last decade. Nowhere has that trend been hotter than in the beverage industry. Grocery aisles are now filling up with beverages promising better mental acuity, health, and increased athletic performance.

Few know this trend better than Francisco Parada-Rabell. He's overseen over two hundred fifty formulations, including dairy, plant-based proteins, teas, and juice-based drinks. Francisco is now the director of beverage innovation at CytoSport, where he's responsible for managing, formulating, and commercializing new ready-to-drink beverages for the Muscle Milk, Evolve, and CytoSport sport brands. We hope you enjoy this conversation between certified Master Chef Ron DeSantis and Francisco Parada-Rabell.

Ron DeSantis: Hello, I'm your host, Master Chef Ron DeSantis. Today I'll be talking to Dr. Francisco Parada-Rabell. Francisco is the director of beverage innovation at CytoSport incorporated. Hello Francisco.

Francisco: Hello chef, it's a pleasure to be here.

Ron: It's good to have you. Francisco, just as we get rolling here, tell us a little bit about Cytosport. Who is it? What do you make? I know you made over two hundred fifty formulations. What's going on there?

Francisco: Well, we're the makers of Muscle Milk. That's the flagship of our company, but really it's divided into three main brands. We have our CytoSport brand which targets the high-end athletes, and we have different options going from pre-workout, during workout, and after workout. Of course they have the flagship Muscle Milk going from twenty grams of protein per serving all the way to our pro-series line, which offers up to thirty two grams of protein per eleven ounces serving size, and we have our recently-added Evolve line, which is our real plant-based offerings, also in ready-to-drink powders or bar options.

Ron: I know that's really good because I just tried one. I know how good that is.

Francisco: I know you did. Thank you!

Ron: So that's great, the background on that. Tell us a little bit about your first food job, your first job in food.

Francisco: That's a great question. I would say, back in grad school, I had the opportunity to work with, not really a mentor, but now a second father to me, Dr. Alvarez. Dr. Alvarez at the time was appointed director of the food industry center, which, as part of the Food Science and Technology Department at Ohio State, serviced different industries. We would teach him how to make cheese and how to process milk and other dairy products. So in addition to my main research, which was milk processing and chemistry, I had the opportunity to get my hands on all these other side projects, and it was a lot of fun.

Ron: It's good to hear that. So now, somewhere along the line, you got interested in food. So did it go way back? I mean, what happened way back that made you kind of interested in food?

Francisco: I think somehow I have always been attached to the food industry. My family comes from Oaxaca, which in my opinion has the best Mexican food, not only because of its variety, but also the different flavor profiles. So I grew up with all these different flavors during family gatherings and just enjoying great tasting food. My grandfather was a chemical engineer, but he worked all his life for the food industry. I have great memories of my grandma taking us to this chocolate factory growing up, when my grandpa was the general manager, and we would eat chocolate out of a line.

Ron: So you lived Willy Wonka in your childhood.

Francisco: A little bit. It was awesome.

Ron: That's great, that's great. So your grandfather was involved in the chocolate factory?

Francisco: Yeah, he was. He was a chemical engineer, but he had different roles throughout his life, but he mainly focused on the food industry. And when the time came to make a decision, I heard about this major called Food Engineering. So I really wanted to become a chemical engineer, but this major was different because it will have all the subjects that a chemical engineer would have, but at the end you get to play with the food. So you get to see the reaction happening before your eyes, and to me that was just fascinating.

Ron: That's great. So you get to do the engineering element and you get to eat what you're engineering.

Francisco: Absolutely.

Ron: That's fantastic. You grew up experiencing these flavors and tastes, and how do flavors and tastes and food play a role in your day to day life?

Francisco: It's a major component of my life. I think flavor is of paramount importance. It not only brings people good memories, but there are also some neurotransmitters that are released in your body when you eat good comfort food. So yes, flavor and taste are of paramount importance in what we do.

Ron: You're right, and for me being on the chef's side of it, trying to capture and evoke memories in guests. But then the other side of it is, am I able to give you something that creates this kind of memory

and this experience, so you start to think about that and you think about why is food important to people? And I think you hit on that, that whole sense of memories and emotion because food is very emotional.

So let me tie it back into what you're doing right now. You're making drinks, you're making beverages and you're making protein additives for a variety of things. So in the drink choices, people are trying different things. Are you seeing that? What are they trying? How does that tie into the kind of work that you do?

Francisco: That's very important. There is a lot of research that goes behind what we do. A lot of research when it comes to consumer insights, flavor preference; baby boomers might not like the same flavor profiles as gen-xers or millennials, so I guess it always starts with the consumer and their acceptance to certain flavor profiles, and then we build from there. We build a product that delivers not only functionality but the macronutrients that they need to achieve their specific goals and objectives.

Ron: Stay with this, stay with that for a moment. So functionality, I mean, that's something that you hear about—functional foods, and, you know, people are realizing that yogurt has a function. It tastes good, but there's a function to that. So, talk about your role as a food scientist, and what is that whole idea of food functionality? What is that? What does that mean on the development side of it? And what does it mean to the consumer?

Francisco: That's a great question, and I think food science and product development is part art and part science. And the reason I'm saying that is because it all starts with the consumers on the flavor preference, yet flavor is somewhat subjective to people's preferences. On the other hand, you have to make sure that the product you're developing is safe to consume, is consistent from lot to lot, and it stays stable during its shelf life, so it requires a deep understanding of not only the ingredients going into that system, but the interaction between those elements.

The trend now, when you think about functionality you think of providing a benefit for a specific purpose. People can achieve those objectives or their potential. People are more and more trying to incorporate more protein into their diets and other functional elements, but protein is of paramount importance and it plays a big role in functionality because it's not only the building block of organs and muscle—it's a fuel source and its involved in a lot of biological functions in our bodies.

Ron: Great, great. I'm going to shift a little bit. I'm kind of interested about what you do and things, so we talked about you going into that. When did you think and realize, when did you know that this was the career path you wanted to go?

Francisco: That's another great question. I have to admit, when I finished my bachelor's degree, I just had the sense of not knowing anything. And don't get me wrong, I was the best engineer of my class, but it was my mom who suggested, "you should go out there, travel and maybe get a degree or a higher education degree." So that inspired me. Throughout my life, I've been scaling up this professional ladder going from scholarship to scholarship, and to my surprise, I got myself another scholarship that allowed me to start a master's degree at Ohio State, and it was probably the best decision I ever made in my life.

Ron: So let's say somebody was considering a career path similar to you. What advice would you give them?

Francisco: Probably some of the best advice I ever received was to get inspired through education. And what I mean by that is that I learned that the fact that you probably don't learn it in school, that doesn't mean it cannot be creative, so definitely stay creative, stay focused and be consistent.

Ron: That's good advice. That is very, very good advice. Are you at liberty to tell us some of the things that you find through the research that you do in terms of trends of food?

Francisco: Absolutely. These farm-to-table people want their food minimally processed, but what I say is that big food can be good food as well. And I think a great example is Evolve. That's a project that is close to my heart. Only eleven ingredients, so it's a clean label, shelf stable, with twenty grams of protein coming from all plant bases. That's good food.

Ron: It is. And you just touched on something that is an important topic, the idea of big food, because I know that you and I realize big food doesn't mean bad food. There's a lot to be had when we take a really hard look at it, and if it's a good company, they're going to look at all the right things. They're going to make the food simple, they're going to make it clean, they're going to make it affordable, they're going to be stewards of our environment, so you know, I'm fully in tune with you. I think that big food is not bad food, so I appreciate you bringing that piece up. Is there any other topic, any kind of thing that's burning on your mind, like, I got to tell this guy this one thing that you want to tell me about?

Francisco: Definitely stay tuned because I believe our best tasting Evolve so far is coming up.

Ron: And you know that is in the beverage sector. You have teas, you have yerba mate, you have kombucha, you have juices, you have spritzers, I mean there's so many things that are happening out there and it's something that we have to pay attention to. Water by itself, today people don't just buy water. They buy Smart Water because there's something in that that helps you out. So there all of these different options and these different things, and—

Francisco: I think we're living in an incredible, amazing era right now, where people have instant access to information and research at their fingertips through technology. People are more informed, are educating themselves, and that sets a trend of looking for beverages or food items that are better for you, that help you achieve your particular goals. If you are a high-end athlete, all the way to an active parent, like myself and trying to keep up with my kids.

And again, one project that comes to mind, that is really close to my heart, is how we came up with Evolve. For years, people have done research on dairy proteins, so I think overall there is a very good understanding of how these proteins will behave in a liquid environment and over the course of a shelf life. I don't think there is much research when it comes to plant-based proteins. And to incorporate that into a beverage can be very challenging because mother nature never gives you the same product from crop to crop, so you have to adjust and take that into account to deliver a consistent product from lot to lot. So with Evolve, believe me, we tasted at least one hundred different types of proteins with different functionalities and different flavor profiles and we finally chose the one with the best flavor, that gave the best functionality to the finished drink. And that along with other companies going into that system, I'm very proud, very proud. I wouldn't work on something that I wouldn't serve myself, or to my kids.

Ron: Well, Francisco, thank you very, very much. It has been great talking to you about these subjects.

Ethan: Thank you for joining us on Our Food Journey™, a podcast by Hormel Foods. We hope you enjoyed this conversation between Ron DeSantis and Francisco Parada-Rabell. For more information about Hormel Foods and our engagement with our partners and customers, please visit hormelfoods.com