

The Human Upgrade: Episode 1100

[00:00:00] **Dave:** You're listening to The Human Upgrade with Dave Asprey. Today's episode is one that's going to be really fun for years. And when I say years, you'll hear about this. Ten years ago, when I started Bulletproof, my first product was clearly the coffee, and then I added MCT oil.

[00:00:22] But what you probably don't know, unless you're a very, very early follower, is that I formulated what I still think was one of the world's best whey protein formulas on the market because it was whey protein from grass-fed concentrates, like all the stuff you'd want in whey, if you tolerate whey, which not everyone does, but it was 20% colostrum.

[00:00:48] And most people didn't know what colostrum was, but there were pro athletes going, what is in this? It's working so well. What's the magic? And then colostrum became very hard to get. You guys are going to learn what colostrum is in a minute here if you don't know. It's the first stuff that comes out of either a cow or even a human.

[00:01:09] It's the special stuff. And we're going to interview about that, but it affects your immune system as well as your muscle growth and things like that, healing. So I went on this quest to find colostrum, including one colostrum dealer who literally would only take Bitcoin or cash and would give you colostrum in white powder packets that looked a lot like they weren't colostrum. I'm not even kidding. And he was selling a 1,000-dollar colostrum because it had magic powers. Okay, it didn't do anything special.

[00:01:42] In fact, it made me cough a little bit, that version of it. But we'll just say I've been a colostrum fan for a long time, and there wasn't really a way that I could recommend getting it because I couldn't get the stuff that I was using. And then there was a lot of inactive stuff on the market, so I didn't really bring your attention to it for more than 10 years, but I think I found something that is a good answer for you.

[00:02:07] So let's get into the science about it. And to get into the science, I thought, hmm, who could I find? How about an adult and pediatric neurologist and headache medicine specialists trained in functional and environmental medicine? That sounds like a good fit for the show. And if you agree with me, then listen in to Dr. Sarah Rahal. We are going to go deep on colostrum, and immune systems, and all that kind of stuff. Sarah, welcome to the show.

[00:02:38] **Sarah:** Thank you so much for having me. Excited to be here.

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[00:02:41] **Dave:** It's funny we're talking about functional medicine. Night before last, as we're recording this, I was with Dr. Jeff Bland, who is the guy who created functional medicine at JJ Virgin's Mindshare event, where he was honored with a Lifetime Achievement Award. I donated 40 Years of Zen and a few other things. And we ended up helping him to raise more than \$300,000 to do functional medicine training for doctors working in disadvantaged areas, like scholarships.

[00:03:16] So thanks, JJ Virgin, thanks, Dr. Bland for your work in functional medicine, and as a result of your work in part, we have an expert here who knows about functional medicine because the creator of the field who's also been on the show was here, so just a little connection point here. So in your adult and pediatric set of data from all of your patients and all, what's going on now?

[00:03:41] **Sarah:** I was trained allopathically, as a pediatric neurologist, and the conventional functional medical model, they all tend to get dogmatic in their own ways at a certain point. So it's really important to always be able to take a step back and think from first principles. And I was really struck in my practice by what is a very alarming boom in chronic disease and young kids.

[00:04:07] I was treating kids in a really busy hospital practice on the upper East side of Manhattan with a four-month long waiting list. Kids as young as two, three years old with chronic daily headache and neurologic issues. Today, 54% of kids have a chronic disease diagnosis.

[00:04:27] And what's so alarming about that is that in the 1960s, that number was 1.6. So we didn't undergo a genetic mutation in two generations. These are all health issues being driven, as your listeners know, by the modern environment and a landscape that really rapidly changed post industrialization and post-World War II complex with the uprise of all these different factories and industrialization machinery that pivoted their attention to developing chemicals that are now rampant in our air supply.

[00:05:00] Chemicals and pesticides in our agriculture, and things in our bath body, home care, even toy furniture products that have never been tested for their safety or effects on human health. They were grandfathered in in the '70s under some legislation, and now they're just

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rampant in the air we breathe and in everything that we come in contact with in our food and in our environment.

[00:05:23] And these things are really detrimental to health. And we're starting to see the ramifications of this very early in life, earlier and earlier. And I myself was personally struck by some of this because I got very sick while I was practicing medicine with my own gut health issues that had been brewing in the background for a long time but really came to the surface and were getting worse and worse.

[00:05:49] And so I was just completely frustrated with the medical model that I was operating under. Really couldn't practice the way I thought was appropriate and do a deep dive into all the epigenetic factors that were affecting these kids with five to 10 minutes to see a patient at a time. So I left.

[00:06:09] **Dave:** Were you in a hospital or private practice, or what were you doing?

[00:06:12] **Sarah:** Both. So I was on a clinical fact sheet in the hospital, so I was doing rounds.

[00:06:18] **Dave:** It's like one of the most unhealthy environments on earth. You're breathing disinfectants all the time, really positive circadian lighting, maybe a great sound environment without beeping and cheering. No pressure from insurance companies, nothing. Okay. So no wonder you got your gut health sick. A lot of--

[00:06:36] **Sarah:** Yeah. Living in paradise in the hospital.

[00:06:39] **Dave:** Yeah. It's miserable. So many of my really close friends are doctors, and the ones who've left hospital environments and just the allopathic three minutes per patient, they're all so much happier. What do you think made you sick from all that? Was it chemical exposures? Was it stress?

[00:06:58] **Sarah:** I think it was a combination of all of the above. My foundational health practices were so disrupted in terms of sleeping and eating patterns, exposure to sunlight. All the really core things that you need for a body to thrive, I was depriving myself of on a daily basis. Working these ridiculous shifts under ridiculous pressure. So I think that was certainly contributory.

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[00:07:22] **Dave:** I'm glad you got out. And if you are a doctor on your way to the hospital listening to this, and I know there are many, thank you for continuing to take care of people after car accidents and when they really need the care. It's now like combat duty the way we're running it, especially in the US.

[00:07:38] So appreciate those of you who are doing the hard work. And for those of you who are made unwell by it, there's another way, or maybe you can make yourself well and still work in a hospital. And if you're a hospital administrator, you probably aren't listening to the show. But if you are, we can do better.

[00:07:53] **Sarah:** Yes, we can do better. So I left because I thought I would be moving into the infant formula space. I thought there was plenty of room for innovation there. There's just a chemical brew that children on infant formula are fed, and it really hasn't been updated for 50 or 60 years, despite all the data because of the way legislation works.

[00:08:18] So I was researching, at the time, colostrum. Colostrum is the first milk that all mammals produce. It's also the first nutrition we all receive in life. So it contains all the nutrients that our bodies need. It acts like a food, but it does something so much more than that because it is chock-full of all of these super interesting compounds, antibodies, and peptides, and growth factors, and micronutrients, and prebiotics, and bioactive molecules that cannot be found in any other natural source.

[00:08:55] They exist solely in colostrum, and they work synergistically in the body, almost like your body's blueprint. And they optimize development of all the different systems early in life. And what I was so struck by is that as I'm combing through all the literature on this, I'm stumbling across not just studies saying how helpful this is for babies, but there are over 5,000 research publications on it saying that it's helpful at all ages, including two recent studies showing it's more than three times more effective than the flu vaccine at preventing flu in elderly patients. And I said, really?

[00:09:39] I never learned about this. And why isn't everybody talking about this? Here's a food we're putting up against, pharmaceutical products in research, and it's performing quite well. And what I came to appreciate is that colostrum is something really unique in the body. It seals up all the barriers.

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[00:10:00] And what that means is just like we have skin is this barrier on the outside, separates us from the outside world, we have the same thing on the inside of the body. It's called the mucosal barrier. It lines everything from our nose, sinuses, mouth, lungs, gut, urinary, reproductive tract. It's like skin on the inside. So it's quite literally the interface between everything we inhale and ingest from the environment and our bloodstream.

[00:10:27] **Dave:** Yes.

[00:10:28] **Sarah:** Yes. And what's relevant about that is all these modern exposures we talked about, the pollutants and the chemicals and the pesticides, the first pathway they hit in your body is one of these barrier surfaces. They hit your skin, where they hit your mucosal barrier, when you ingest or you inhale them, and they break down the integrity of that barrier.

[00:10:48] They cause disruption at different parts of the layers of those barriers. And what that does is it makes the barrier more permeable than it's supposed to be. Things get into the bloodstream that aren't supposed to, trigger the immune system inappropriately, and that's inflammation.

[00:11:04] And inflammation is what underpins almost every single modern chronic ailment that we see, the big things like autoimmune conditions, MS, some cancers, but also the day-to-day health issues that we take as normal and common now. The mental fog, the unwanted weight gain, the acne, the allergies, the bloating, the fatigue. All of these things can be traced back to the health of these mucosal barriers.

[00:11:33] **Dave:** It's interesting. I did some genetic analysis, and I tend to have leaky barriers. So just on average, I'm going to have a lower quality mucosal barrier in my sinuses, my blood-brain barrier in my gut, which means I'm probably like a third of people more susceptible to these things, and I went through the same stuff that you went through in my 20s, and I was just absolutely wrecked.

[00:11:57] And if people are new to the show, you probably haven't heard, yes, I weighed 300 pounds, yes, I had chronic fatigue syndrome and toxin-induced brain damage that Daniel Amen, found. Stuff that I've all been able to reverse. So I got obsessed with making my immune system work better because I was always sick-- fifteen years of antibiotics every month. It was terrible.

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Maybe not every month for 15 years, but most months because of chronic sinus infections, and strep throat, and all these things.

[00:12:28] Colostrum has been on my radar forever, but I am allergic to cow's milk. I can handle butter. Most people do. And I can handle ghee, but if you give me a piece of cheese, it hits me like casemorphin, and then I just get so tired. I'm unsafe to drive if you give me a piece of mozzarella.

[00:12:48] And learning that was really useful because I'm also not employable if I eat cheese every day because I just fall asleep all the time. It's gross. Not to mention farting. And so a lot of the colostrum that I tried was triggering dairy symptoms in me, but the colostrum that you invented, which is ARMRA Colostrum, I take that, and my immune system works better, but I don't get any of the negative things I get from dairy. Why is it doing that?

[00:13:15] **Sarah:** It's such a great question because I, too, was in that position at this point in my life. And I uncovered this literature, and I said, this is something that could be so beneficial for me. These barriers are destroyed on a daily basis, just by virtue of living in the modern world. And we can filter our air and eat organic food as much as we want, but at some point, this is inevitable.

[00:13:40] So these barriers are under constant assault despite our best efforts. And when infants are born, they also have an issue with the barrier because when they're born, it's just leaky and immature. So colostrum evolved 300 million years ago, specifically to be the first food that goes into an infant's body and seal up the barrier like glue to protect them.

[00:14:00] And it does that at any age. But here we are, living in this modern era, where everybody has an issue with dairy. And dairy intolerance is so rampant. Myself included at this point in my journey of gut health, I was very sick. I had a very rare, strange complication. My entire colon collapsed in my abdomen.

[00:14:22] **Dave:** Oh my gosh.

[00:14:23] **Sarah:** So I was in and out of the hospital with obstructions, unable to eat or drink for weeks and weeks at a time. I was very, very sick and close to death. I had a few stops along my journey.

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[00:14:36] **Dave:** How old were you? Were you still in school, or were you--

[00:14:39] **Sarah:** Just a few years ago, after I left.

[00:14:43] **Dave:** Wow.

[00:14:43] **Sarah:** So starting in 2019.

[00:14:46] **Dave:** Okay, so if you don't mind talking about that a little bit, were you taking antibiotics? Is this exposure to E. coli?

[00:14:54] **Sarah:** I'm a child of immigrant parents who were very trusting of the medical system, and I was sick all the time. I had a very dairy-heavy diet, and I was getting sinus infections and strep throats all the time and rounds and rounds of antibiotics, similar to you, perhaps on a monthly basis.

[00:15:12] It was that frequent. So I was definitely not in a position of robust health when I was faced with some of the stressors of my adult life, practicing medicine and in this surrounding. But that was where I found myself.

[00:15:26] And I saw the evidence in the literature that this was something that could be so helpful to me, to seal up my gut, to help me with nutrient absorption, to save a lot of the wasting away that was happening to me, but I was so afraid to take it because I could not tolerate dairy at that point. I was having the same reactions that you were.

[00:15:45] **Dave:** Let me ask you a question about that. So I've found that quite often, when people have chronic strep and chronic sinus infections, in fact, almost always, there's toxic mold in their home. And it's a trigger for it. Were you another mold person? It feels like mold is becoming more and more in our consciousness. Have you ever looked at that? Because I know people use colostrum to heal the immune damage from mold.

[00:16:10] **Sarah:** It's not something I explored, but I have suspicions that was the case. Yeah.

[00:16:17] **Dave:** Okay. Anytime you see a kid with strep throat every single month, you're like, look in the walls, look in the ceiling, get a dust test, and what do you know? There's always mold. It's the thing that causes biofilms to form and makes strep more aggressive. And then strep

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can trigger PANDAS as well, which is an immune reaction to stress that makes you have OCD, and ODD, and probably ADHD.

[00:16:39] And I had those as a kid. I would do the facial scrunching, a little bit of stuttering, and certainly, the oppositional defiant disorder. I still have that. Anytime some regulatory agency douchebag says I'm not allowed to have access to peptides that are present in my own body, my oppositional defiance just gets triggered. I don't know why. But maybe that's a healthy thing that all free humans should have. I don't know. Anyway, I digress.

[00:17:03] **Sarah:** Yeah. Back to colostrum. But like you, I was having reactions to conventional dairy. So I couldn't find a product on the market that I really felt would be safe to put in my body. I was in quite a fragile position at this point, but I wanted to try it. So I spent two years in R&D developing what is now ARMRA's proprietary technology.

[00:17:26] We call it Cold-Chain BioPotent Technology. It's essentially a pasteurization technology that avoids the use of high temperatures so that all of those compounds retain the integrity of their raw form. Essentially, conventional dairy is an adulterated product. Once you pasteurize milk and expose it to conventional methodology, which is very high temperatures for a very short time, you change the shape of the peptides and destroy some of the vitamins.

[00:17:59] And the way that bioactive things work in the body, is they have a specific shape that fits a specific receptor, and when those match like a lock and key, you activate a physiologic pathway in your cells. But once you expose that peptide to high temperature and heat, it denature. It unfolds. It changes shape.

[00:18:20] So once it goes into the body, the body doesn't recognize it anymore. The key doesn't fit the lock. In fact, it says I don't know what this is. This is not a food. It doesn't make sense that we would have a problem with dairy. Dairy is the first nutrition we all receive. It's a natural food for the body.

[00:18:38] Evolutionarily, it doesn't jive. It's the conventional milk that's an adulterated product that is no longer a food. And because the body doesn't recognize it, it triggers an inflammatory cascade, and we have all sorts of intolerance reactions within the gut, the skin. There are several differences between the A1 beta casein and A2 beta casein proteins that are in milk in this country because of the breeding that was done on the specific species of cattle.

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[00:19:10] that make the A1 casein highly inflammatory and also have some opiate-like properties that can affect the brain as well as the gut. It's similar to gluten. It can be a very inflammatory particle.

[00:19:27] **Dave:** I'm having a little bit of skepticism here. You've claimed that you're a medical doctor, and you just talked about the importance of grass-fed dairy. Can this happen in the same brain? No, thank you. Everything you just said, yes, yes, yes. There was a shortage, globally, of grass-fed butter in 2014 that was caused by Bulletproof Coffee.

[00:19:49] And I've been such a fan of grass fed for the environmental things, for the animal quality things, for the human health things. And we need more people with your credentials talking about the fact they are not the same. Okay, I have been teaching people A2 grass-fed dairy, raw, if you can get it in your state.

[00:20:07] And if you can't get it in your state, it's because your government is fascist. They don't have the right to tell you what to eat. They never did. It's not in the Constitution. It's not a right you've consented for them to have. So you can just stop paying attention to government food recommendations.

[00:20:22] It's not their job. You pay them so that people don't steal money from you and that they don't harm you. That's what governments are for, keep you safe from violence, not safe from choosing to eat the foods you choose. That's not their job. So let's say that you can buy raw A2 grass-fed dairy. I can, I think, in Texas. But if I drink it, I still get snot, and I still get tired. Why does my body still not handle raw A2 dairy?

[00:20:50] Hmm. That's a good question. You may be intolerant to some of the other compounds in that product. But ARMRA Colostrum doesn't do that. That's why I like it.

[00:21:01] **Sarah:** Yeah. So what we've done at ARMRA Colostrum to really make it a robust, and safe, and well-tolerated product is in addition to this cold chain process, which basically allows it to mimic a raw dairy product, all of the integrity of the compounds exist with the full bioavailability that they do in nature. It's not an adulterated product, so it's a better physiologic match for the body.

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[00:21:28] What we've also done is taken out some of the risk. So there's no casein in ARMRA Colostrum, and there's no fat in ARMRA Colostrum. As you know, hormones, pesticides, any potential exposures are stored in fat tissue and casein to buffer against any risk of A1 coming into that product.

[00:21:49] We really removed any of the potential inflammatory components of colostrum from ARMRA Colostrum. And what that allows us to do is also amplify all of the concentrations of the bioactives that are so essential to the health of the human mucosal

[00:22:07] barrier.

[00:22:08] So much talk about IgG in colostrum. And IgG is super important. Everybody became an immune system expert during COVID, and we're all talking about IgG. IgG is prevalent in the blood, and it has a very specific purpose but at these mucosal barrier surfaces, which is where 80% of your immune system lives. Makes sense.

[00:22:29] If you were guarding a castle, you put all your soldiers at the gate patrolling on the inside. You'd arm the entry points to this castle. IgA, the secretory immunoglobulin A is the most prevalent antibody that patrols these mucosal surfaces. And we have a very high concentration of that, even though it's a product from bovine colostrum, from cows, which is the conventional way that we source colostrum.

[00:22:57] Human colostrum has more IgA. And that has to do with differences in the placenta between the two species. But our product is more physiologically similar to what human body needs versus what a cow body needs. And so when you combine all those forces together, you get something that's really a synergistic match for the needs of the body. And when we did third party research, the ARMRA Colostrum confers 32% stronger antibacterial immune protection than the other stuff on the market. And it largely has to do with all this technology.

[00:23:32] **Dave:** It's really interesting. So you went down and said, all right, we're going to test different sources of dairy, I'm assuming. What happens if you take a soy, and corn, and grain-fed cow, and you take the milk from that cow and try and make colostrum from it? What happens?

[00:23:48] **Sarah:** So you're going to get colostrum. You're going to get a different composition of omega fats in that fat proportion of colostrum.

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[00:23:57] **Dave:** But there's no fat in colostrum the way you do it.

[00:23:59] **Sarah:** Exactly. The way we do it, there is no fat. But regular colostrum, whole colostrum does have fat in it, and you won't get the same concentration of nutrients. It's going to be similar, but it's not going to be the same. You're not going to have the same concentration and degree of bioactive compounds within that colostrum.

[00:24:20] And you risk contamination. One of the things that we take so much care in is making sure that our products is glyphosate free, even though it's a fat free product. We test every batch for glyphosate. Very important to understand what the animals are feeding on and the circumstances in which they are being raised because stress itself changes the composition of the molecules in the body.

[00:24:47] **Dave:** It's interesting what happens when you just mistreat an animal. I think people are going to see, coming up here, a lot of people saying, oh, red meat's bad for you because of a compound called Neu5Gc. And it just so happens, grass-fed animals don't have that. It's just the grain-fed animals. Bottom line is, if you're feeding cows grains, it's bad for the cows, it's bad for the planet, and it's bad for you. And that's just how it works.

[00:25:12] **Sarah:** Yeah. Healthy animals make healthy food for us to consume. It's really a beautiful circle.

[00:25:19] **Dave:** Yeah. I almost feel like it's the food regulatory agencies that are allowing that kind of food but not allowing us to have peptides like BPC 157. I'm pretty sure that my interests weren't at heart there. And I am looking to create or, say, to continue to create this awareness in the world that says, wow, when I do it right, look how I feel. And when I do it wrong, look how I feel.

[00:25:49] And that was why your stuff, the ARMRA, caught my attention. And to be really clear, guys, I saw an ad from Sarah or from Sarah's team that said, this is better than colostrum. And I'm thinking, yeah, right. I hear bullshit all the time. And people send me pounds of whatever every month. Sometimes I'm like, where'd you get my address? Because I wouldn't try this product. I'm not here just to talk about everything out there. So I actually ordered your stuff under a fake name.

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[00:26:17] **Sarah:** Is that so?

[00:26:19] **Dave:** Yeah. It's like, all right, let's see if this is real. So then I tried it, and number one, it didn't cause dairy symptoms, which is different than most colostrum I've seen. Okay, there's something cool. And I looked at some of the results that you talked about online, and I said, okay, like this has my attention.

[00:26:36] And I took it, and it's to the point that I'm leaving for Turkey. I'm doing an event there, a small intimate event where I'm spending five days teaching people biohacking. And then I'm going to Dubai. And I've also spent the last week in a hotel that had toxic mold, so my body is not that happy. And I'm very resilient to it, but I have joint inflammation that is not native in my body anymore. So I'm out of ARMRA.

[00:27:01] I took my last scoop when I left. And I had three packets left on my trip, and I took them. And now I need it because my barriers are compromised by mold. So we spent 25 bucks on shipping to have the overnight thing so I can have a little canister of ARMRA to take with me on this trip. And we'll see what they say when I cross the borders, but I'll smoke a little package tape for my ribs. I know it's going to come through.

[00:27:24] **Sarah:** It saved my life. It saved my life, Dave. So I don't go a day without this stuff. My course worsened. I ended up having to have a total colectomy a year ago, but on the road to recovery. I wouldn't be here without this product. And so my mission has always been to just educate as much as possible about this food from nature, nature's first food, because if I had this earlier in my course, it would have saved me a really difficult road.

[00:27:54] And the benefits that I'm now appreciating and learning from my customers stem so far beyond just the obvious immune and gut health benefits that you would expect with the product working at these areas. Because this is such a foundational pathway of the body, and it's really combating the cycle of inflammation that so many people live under, the benefits are knock-on for the entire body. Almost sounds like snake oil. Hair regrowth, skin rejuvenation, collagen reactivation in the skin, people's autoimmune conditions disappearing, allergies, never mind all of the fitness and performance benefits because of those growth factors and peptides. This stuff has traditionally been traded on the black market for that reason.

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[00:28:42] **Dave:** That was what I talked about earlier. The colostrum dealer, he was like getting it directly from Amish people with refrigerators. There was a whole story there. And by the way, the snake oil thing is the reason I laughed. The more foundational you go in biology, even if you go down to the mitochondrial layer, which is not that far down into the foundations, the effects are so widespread and so dramatic that people will say it's snake oil.

[00:29:04] But the reason that I really laughed is that, back when Joe Rogan-- I've just on a show three times when he was trying to cancel me because he was an investor in a competing company. So he said, overnight, Dave's a snake oil guy, without any evidence. But I did an April Fools post, and I said-- at the time, it was when I was at Bulletproof.

[00:29:26] And it was, introducing Bulletproof snake oil. And our snake oil is better because it's grass-fed and cold-extracted, and we spin the snakes at high speed to extract the oil and then release them into a snake sanctuary, all this stuff. And it was a product launch for snake oil because I'm like, as you can for yourselves, like this is helping people. And that's how it is.

[00:29:44] And by the way, Joe, every time you say my name, I sell more coffee, even if you say I'm a bad man. And it was so funny because every time someone says snake oil, it brings me joy because when you can affect broad spectrum immunity, and tissue growth, and tissue regeneration, and your hair does grow back, or your hair gets darker, and your joints don't hurt, and you stop farting, whatever things happen, in medical school, what did they teach you if someone had all 10 of those symptoms? Wouldn't that be a hypochondriac, right?

[00:30:14] **Sarah:** 100%. 100%.

[00:30:15] **Dave:** And now, I have a product. You take this one thing. And it's not a drug for one symptom. It's not a drug. It's a food. And when it hits you, it affects everything. This is how it's supposed to be.

[00:30:26] **Sarah:** Yeah.

[00:30:27] **Dave:** Which is so cool.

[00:30:28] **Sarah:** None of this myopic one-- a pill for every part of the body, the Western model operates under. It's such a disservice to the orchestra of the body that's really just working in harmony.

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[00:30:42] **Dave:** It's a broken way of thinking. And the idea that one thing is the cause, it's like if you punch yourself with your right fist and your left fist, which fist was the cause of pain? I don't know. Maybe you have to stop both fists for it-- now, you make that claim though, that colostrum is better than collagen. And I made collagen into a billion-dollar industry category, so [00:31:06] we got to have a little throw down here, Sarah. So why is ARMRA Colostrum better than collagen?

[00:31:12] **Sarah:** I will say, they serve different purposes. I take issue with the claims around collagen being of specific benefit for hair, skin, and nails. This marketing association created around what is essentially a raw ingredient. Collagen is what most of your body tissue is made up of. It is essential. It is the most important protein structure in your body. 100%.

[00:31:39] And I think that to extract specific benefits for hair, skin, and nails in a targeted way, colostrum is much better suited to the task because of its benefits at the cellular level for reactivating collagen stem cell. It reactivates your body's own stem cell collagen production in addition to helping heal that skin barrier against inflammation, pollutants, toxins, UV light.

[00:32:07] And then in terms of the nail growth, hair regeneration, for the follicles, and the scalp micronutrient, these are all very specific and targeted ways that cholesterol really confers far greater benefit for those use cases than collagen. Colostrum is not meant to be a protein supplement. It's not meant to be a protein replacement. It's meant to restore and help you revive this foundational pathway in the body that so many people have a disruption of just by virtue of living in the modern world. So they're different products.

[00:32:41] **Dave:** So you're getting into something that is so important and something I mentioned a lot in my last book, the Smarter Not Harder book about biohacking. It's that the big food industry used to say, oh, it's about calories. All calories are the same. So you could cancel out a Snickers bar with a Diet Coke, which is nonsense.

[00:33:01] So now though, they're like, oh, it's about protein. How much protein are you getting? By the way, here's an all-protein gluten cookie. It's just gluten protein and nothing else. And it's the same as a steak, or a cricket, or whatever nonsense fake world they're in. And it turns out, at least in the way I see things, and I think the way you see things, protein is a building block ingredient made out of amino acids.

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[00:33:25] And protein is also a signaling molecule because the way you assemble the amino acids, they go into words, which are basically peptides, small peptides. And then you have polypeptides, or bigger peptides, which are like sentences that are spelled out with amino acids. And then a complete protein would be like a paragraph made out of letters that are individual amino acids.

[00:33:48] And a sentence has different meaning. And to that point, there are a lot of different sentences in colostrum. These are the rebuild, regrow, hey baby, you got to be strong kind of thing. So there's a lot of wisdom in that protein. The reason that I remain a fan of collagen peptides, which is what I've always sold, versus gelatin, gelatin's a raw ingredient, useful for the body.

[00:34:13] But collagen peptides, especially the di and tripeptides-- these are two and three letter words, like ifs, ands, and buts, and thus-- they're just useful. Those can signal. Because when they're floating around, the body goes, something must have injured my skin, therefore let me turn on more collagen production.

[00:34:29] So it's the signaling mechanism plus the presence of the raw ingredient where I've found studies that show those help. Now, is that going to be more powerful than a colostrum that doesn't trigger all the weird stuff that the old colostrum that I don't use anymore did? So ARMRA Colostrum is going to say, hey skin, you need to robustly heal. And if you have the wrong ingredients present, it helps. So I agree with you. Sure.

[00:34:54] Yeah. They're different things and neither collagen peptides or ARMRA Colostrum is a complete protein source. They're signaling sources that also contain some protein, if that makes sense.

[00:35:07] **Sarah:** Correct, yes.

[00:35:08] **Dave:** And I think the ARMRA is stronger because you're dealing with all barriers. And lots of people have experienced, especially, the speed of hair growth. And that may be a raw material or may be a signaling thing from collagen, but I want to see what you think. Everyone listening, if you try ARMRA with or without having collagen present, I think you'll probably get the best benefit if you have about 20 grams a day of collagen as a building block so that when you get the signal from ARMRA, then your body can most effectively use the signal.

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[00:35:43] **Sarah:** Absolutely. The signal is no good if you don't have building blocks to put it into effect. So the combination is important. It's important to have a whole-food-based diet with clean animal protein as your base. You want that foundation of healthy building blocks upon which you can supplement something like the collagen peptides that you reference so that colostrum can do its work. Can't do its work if it doesn't have any concrete and cinder blocks to build anything new with. Just doesn't make sense.

[00:36:18] **Dave:** Okay. So we have two people present. One of them eats grass-fed steak and low-inflammation vegetables and takes ARMA, and the other one eats fake burgers and a whole foods plant-based diet with no saturated fat except from coconuts, and they take ARMRA Colostrum. Which one's going to be healthier?

[00:36:42] **Sarah:** I would argue the first. I think the latter is starting at a huge disadvantage.

[00:36:49] **Dave:** Wait a minute here. You're a medical doctor who's recommending steak and you know about grass-fed dairy? Where did you go to medical school? This is crazy.

[00:36:58] **Sarah:** I know. Dave, I was excommunicated a while ago, so it's okay.

[00:37:03] **Dave:** Like all the good doctors. Yeah, I do think that having adequate animal protein and taking colostrum is a really good idea. But if you are plant-based, you can't take colostrum because it is animal-based. Or you could say, wait a minute. Is ARMRA Colostrum within my ethical framework? If you are a vegan-- by the way, I was a raw vegan, so it's not like I'm not talking about myself here.

[00:37:29] There's one of three reasons, or maybe all three. You think it's good for animals, even though you're killing more animals with your fake burgers. You think it's good for you. It's not. And you think it's good for the environment. The data is in. Rotting grass releases as much CO2 and methane as rotting grass inside a cow's stomach.

[00:37:47] It is not the cow's fault. It is the grass's fault. So if you continue that line of thinking, we should actually just spray glyphosate on everything because we can't have grass or cows in order to save the environment. So maybe there's a flaw in your logic. You'll have to deal with that one later and maybe sell your shares in Bayer/Monsanto.

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[00:38:05] But let's go back to what you're doing, ARMRA, and grass-fed, and cows, because one of the arguments that vegetarians will make, because vegetarians are okay with eggs and dairy-- and by the way, you can be a healthy vegetarian. It's harder, but you can do it. What about stealing colostrum? This is like mother's milk. This is stuff that goes into making calves healthy. So aren't you taking away a vital nutrient from baby cows you mean doctor you?

[00:38:33] **Sarah:** So no. The colostrum that we source for ARMRA Colostrum is strictly from grass fed cows and family-owned dairy farms here in the US. We have relationship with different dairy co-ops. And the interesting thing is that colostrum is produced in surplus. It's actually considered a waste product in the dairy industry because of the FDA's wisdom.

[00:38:59] You're not allowed to sell it into the milk industry. It's considered a separate product. It's illegal. It's not part of this industry. So baby calves only consume about 50% at most of the colostrum that's produced. So we take the surplus after baby calves have fully fed, they're done receiving colostrum.

[00:39:21] **Dave:** It would have been thrown away or fed to pigs if it was a regenerative farm.

[00:39:24] **Sarah:** Yeah. So it's either repurposed for other veterinary use, it's discarded, or the more lucrative thing that most conventional farms do now is they just ship it to China. There's a much larger colostrum market in China. They've been onto this stuff for a very long time.

[00:39:43] **Dave:** Traditional Chinese medicine knows a thing or two, don't they?

[00:39:47] **Sarah:** So instead, we take this surplus. We buy it from farmers. We upcycle it to produce our ARMRA Colostrum. So baby calves, their needs get met first before anything is produced.

[00:39:58] **Dave:** There's a bit of an issue there that I think would cause the end of all of these larger life on earth. But as a small farmer myself, I built a regenerative farm on Vancouver Island with cows, and sheep, and pigs, and chickens, and eggs, and vegetables, and trees, and bees, and all that stuff. There is no way in hell a small farmer is going to abuse their animals unless they're a sociopath.

[00:40:24] You live with them. You nourish them. You wake up early in the morning to milk them. And when it's birthing season, you're up at 3:00 in the morning, at least for us. We didn't

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have baby cows. We had baby sheep. But I will tell you, there's a whole month where you don't sleep because you're pulling sheep out at 3:00 in the morning and cleaning them up.

[00:40:42] And it's work, but you care for the animals. And our deal as a species is that we nourish our domesticated animals, and they nourish us, and they're down for that. It's a sacred thing. It's so sacred that when it's time for us to butcher the sheep on the farm, the ones that are down, they will walk to the spot where they're going to get butchered because they know. And they are okay because we have showed gratitude.

[00:41:07] So it's a sacred thing. You're not going to see a small farmer abuse an animal, and we're not going to take the mother's milk away from the baby cows because then the baby cows wouldn't grow, and we wouldn't be able to pay our house payments. It's this big of a deal.

[00:41:21] So the fact you're using it after the baby cows get it, and it would have gone to waste or been sent off to China, and then you're converting it into something that makes my immune system work better, I'm okay with that. I check in on these things before I'm willing to talk about a product like this because I think you're onto something.

[00:41:38] I have worked for 10 years, and like I said, I used to sell colostrum. It was just very hard to get good colostrum. And so you went in on a level that I didn't have the time or focus to do, and I'm pretty excited about that. I do think it triggers a collagen production in the body, and I think you should have it with steak. But you shouldn't have it with sugar, according to your own literature. And I want to know why I wouldn't take ARMRA Colostrum along with something sweet.

[00:42:07] **Sarah:** They cancel each other out. You have sugar molecules that are going in and disrupting the barrier the same way that any pollutant or pesticide would, and then you're consuming something along with it that's meant to regenerate and strengthen that barrier. So you're doing yourself a disservice, I think, by consuming it along with another toxic product.

[00:42:32] **Dave:** So you shouldn't have it with kale juice either then.

[00:42:34] **Sarah:** I would agree with that.

[00:42:35] **Dave:** Or spinach juice. So what I'm talking about there, guys, is oxalates. And I wrote about them in the Bulletproof Diet 10 years ago, wrote about them in Smarter Not Harder.

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Oxalates are tiny, razor-sharp crystals that shred the lining of your gut and even the membrane of mitochondria. And the things that I did as a raw vegan to my health, from overconsuming oxalates, it's non-trivial what happens in the body there.

[00:42:58] So if the goal is to not disrupt your gut bacteria, you wouldn't want to take it with a lot of toxic plants, but you could take it with some. I thought you were going to answer differently though. I thought you were going to say, it's because in addition to the proteins that are present, on the surface of our cells, we have what researchers used to call junk sugar.

[00:43:21] So there's a layer of polysaccharides, basically. These are just sugars that are cross-linked on the surface of our cells. It turns out that's part of cellular immunity, and they're not junk at all. So anytime a researcher says something is junk, what that means is the researcher has an ego and doesn't know what it does yet because Mother Nature doesn't make junk because it's too expensive to make junk. Everything is there for a reason. So are there polysaccharides that are part of the immune signaling that's in the colostrum that you're making, or is this just about the--

[00:43:51] **Sarah:** No, absolutely. There are polysaccharides as well. And it's something else you started to touch on, which I just want to take one step further, is the microbiome. We haven't quite made it to mainstream consciousness yet, the importance of the barrier and how it lives on all of these surfaces.

[00:44:07] It is many layers thick. And I think probiotics got very popular over the past few years. It's really an attempt to address one layer of this barrier, usually at one very specific surface, the gut. But the microbiome really exists at all of these surfaces of the mucosal barrier.

[00:44:25] Now, the microbiome is an interesting thing. And I think that the one-size-fits-all approach of probiotics is somewhat misguided. We all have different ecosystem of bacteria living in our gut, and they don't always play well with each other, especially in those who have underlying immune dysregulatory issues.

[00:44:45] So just the idea of repopulating a healthy microbiome just by taking a pill with bacteria in it, I think sometimes has unintended consequences. But what's interesting about colostrum is it has a very unique oligosaccharide in it called a milk oligosaccharide.

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[00:45:03] So most of the prebiotics that you buy on the market are plant derived. Milk oligosaccharides are a unique thing that are only found in colostrum. They're a whole food prebiotic. And what milk oligosaccharides do is they specifically feed the bifido species of bacteria along the microbiome.

[00:45:22] So this is the healthy population of bacteria. They preferentially feed those and starve the pathogenic bacteria, whereas prebiotics in general would just feed bacteria. So you actually have the power with colostrum to shift your microbiome composition towards an optimized healthy structure at all surfaces. And that is something unique to colostrum.

[00:45:49] **Dave:** Hmm. This is an interesting thought. So I wrote Fast This Way, which is in my big book on fasting, but even then, the Bulletproof Diet was the first modern diet with intermittent fasting in it going back to 2011. And I talk about how you can have some fat because it doesn't raise mTOR, it doesn't raise insulin, and you can have even prebiotic fiber because it doesn't raise mTOR, it doesn't raise insulin.

[00:46:17] So you're still getting the effect of a fast. And some people get really mad, like, in the mouse studies, the mice only had water. I'm like, yeah, we know what the mechanisms are, so you can do these things, and fasting still works. But I do know that protein is present in ARMRA, but it's just a tiny scoop, and it looks like if you have less than a couple grams of protein, it's probably not enough to affect mTOR insulin. Have you seen people use ARMA during a fast? And if so, do you mean good bacteria?

[00:46:47] **Sarah:** I haven't collected clinical data along those lines, but I agree with you.

[00:46:51] **Dave:** Sure you have. It's called clinical observational data.

[00:46:55] **Sarah:** Customers have not reported back. They have not reported back, but I've had several cohorts certainly reach out to say that they were using it as part of a protocol to ask.

[00:47:03] **Dave:** Okay. So people are trying it, but you haven't.

[00:47:06] **Sarah:** That's right.

[00:47:07] **Dave:** Okay. Got it.

[00:47:08] **Sarah:** There's 0.6 gram of protein in a serving, which is only a small amount.

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[00:47:15] **Dave:** Okay. So that's not going to affect the primary signaling things that a fast does. It's mTOR, and it's insulin. So you will have zero effect on those, as far as I can tell, unless it was some weird insulin-raising type of peptide. So I'm not worried about that. One of the reasons you might fast with only fat or fast with just coffee, and tea, and things like that is if you're trying to do a gut microbiome reset.

[00:47:43] And even then, I think the evidence is pretty strong that if you wanted to do a reset, don't eat anything except what feeds the good guys. And that would be ARMRA. At least until I hear from people who have had really bad results, which I don't predict what would happen, I am very open to saying, all right, if you're doing a fast, especially a multi-day fast, maybe supporting immunity would be really good.

[00:48:09] Another thing that happens during extended fasting or extended carnivore without dairy, especially, is that your Akkermansia, which I've done several episodes on-- this is almost good gut bacteria. In fact, I take Akkermansia. But if you don't eat any oligosaccharides or other things that feed your good gut bacteria, eventually the Akkermansia starts to eat your mucus lining, and then it tunnels in and can create leaky gut.

[00:48:35] And this happened to me on what is now called carnivore. I tested that out before I wrote the Bulletproof Diet and got, actually, some autoimmunity and leaky gut, and it ruined my sleep after three or four months of only eating meat with collagen, by the way, and with liver capsules and lipase I was taking at the time. So something didn't work right. I hear a lot of people on extended carnivore get that, but for a month or two. So maybe adding ARMRA during those fasts or even on a carnivore diet is a good idea.

[00:49:05] **Sarah:** I like it. Yeah, I think what you said makes sense.

[00:49:07] **Dave:** Okay. So I will endorse that until someone says, here's what happened and why it didn't work, and it would need to be more than one someone. But mechanistically, I really like this idea. I have been using it. Like I said, I just ran out. I had a box of the packets and the canister of it, and I'm really enjoying it, and I feel better on it, and I have no slime, no brain fog, none of the stuff that happens from cow dairy.

[00:49:31] So you really have achieved something pretty magical that way. Something else that you recommend that's very cutting-edge is you're saying, just put a scoop in your mouth. It

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tastes, I don't know, vaguely milky. It's not very strong tasting, but you say, put it in your mouth to feed your oral microbiome.

[00:49:50] And here's what I know. Because I'm an early advisor and investor in Viome, and Naveen Jain's been on the show, I don't know, half a dozen times, a dear friend, he just actually was approved for detecting oral and esophageal cancer by just looking at oral bacteria in the mouth.

[00:50:08] And their data from 600,000 people now shows that the bacteria in the mouth are setting your gut microbiome. Talk about data. They've got more data than almost anyone on that to the point they can predict what's going to happen 10 or 20 years from now or if you have the beginnings of cancer. Why would I take ARMRA and put it in my mouth versus just drinking drink it?

[00:50:32] **Sarah:** First of all, when I was looking for a colostrum product initially, they were all sold in capsules. And the more you learn about how it works, the more that just seems so off base and such a disservice to the magic of the product itself. You want to maximize contact of those bioactives along the mucosal surfaces of your body.

[00:50:53] So the best way to take it is straight shoot it into your mouth. I call it like a milk dud flavor. It's slightly sweet, but very mild and neutral. And it gets really sticky in your mouth. It sticks to your gums, between your teeth. That is the good stuff. That is where the magic is happening as it's getting absorbed along those mucosal surfaces. And you're deriving benefit, greatly within your oral microbiome along those oral mucosal surfaces and then down to your larynx, your esophagus, your stomach.

[00:51:31] So I prefer to do that, just take it as a straight shoot. And most people take about three to four servings at a time, three to four scoops. It's a very small amount. It's really that concentrated, potent, bioactive piece of colostrum. It doesn't have any of the other components. So you're maximizing benefit just by the virtue of how concentrated it is.

[00:51:55] And then you get it all along those surfaces. So you can absolutely put it in water. You can absolutely put it on anything cool. Nothing hot, for the same reason we talked about pasteurization being an issue. You do not want to expose this product to heat. You'll destroy the bioactive components. But really, straight shoot is the best way to take it.

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[00:52:16] **Dave:** All right. This is going to sound weird. Are you okay with a weird question?

[00:52:20] **Sarah:** Always.

[00:52:22] **Dave:** Okay. I was in a really moldy hotel room, and at least for me, when I'm in an environment like that, it creates this weird low-grade systemic inflammation. I feel it a lot bodily. I used to feel it all in my brain, but I've healed that, so I didn't get any brain fog to speak of. But also, my sinuses are just junky, for lack of a better word. And I thought about doing a line of colostrum.

[00:52:47] **Sarah:** Not a bad idea.

[00:52:51] **Dave:** Oh my gosh. I didn't because I don't know if it's going to do-- so it seems like it would really help the nasal integrity. I know you're not endorsing this clinical whatever. As long as you don't get it in your lungs, you probably don't want that, but getting it up in your sinus cavities, it's not going to cause bad bacteria to grow. The bifidobacteria, or bifido, however you like to say, are present in the sinuses anyway. As my stuff arrives tomorrow, I'm going to do a line of a line of ARMRA. I'll do it on Instagram.

[00:53:20] **Sarah:** I've heard of ARMRA in all sorts of orifices.

[00:53:23] **Dave:** Really, vaginally, it would be amazing, right?

[00:53:26] **Sarah:** Like an enema?

[00:53:29] **Dave:** Oh, okay. But not vaginally, just in--

[00:53:31] **Sarah:** Vaginally, absolutely, as well. Yeah.

[00:53:34] **Dave:** Got it. So would you like fully vaginally insert it or just sprinkle it in your panties?

[00:53:40] **Sarah:** I would put it along the mucosal surface.

[00:53:42] **Dave:** Just the mucosal surfaces. Okay. And then rectally people, I'm guessing they put it in water or something.

[00:53:48] **Sarah:** Yeah.

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[00:53:49] **Dave:** Okay. Interesting. And you could do that with probiotics if you wanted to as well at the same time?

[00:53:55] **Sarah:** Yeah.

[00:53:55] **Dave:** Okay. I have not tried that, but I'm not opposed to it. Certainly, I've done enough ozone in the back door, including on Instagram.

[00:54:03] **Sarah:** The wonderful thing about colostrum is it's a food. It is a food. It is one of the only things in existence that is truly a food. Other plants, animals, the other things we consume, they exist in their own right. And we've co-opted them into our dietary system, but colostrum is made by us, for us.

[00:54:24] It has one purpose, to be consumed for its health benefits as a food. So it's meant to be a part of our body. It's meant to be a part of our makeup. And that is why it is perfectly honed for the digestive system. Its bioavailability is 100%. It's digested, broken down exactly as it needs to be along your digestive tract in order to extract the different active particles as they reach different parts of your digestive system and along your mucosal surfaces.

[00:54:54] And all of the technology of ARMRA Colostrum is not about, overengineering it. It's about trying to keep it in its raw form, respecting what Mother Nature has crafted over 300 million years and the anti-fragility of this perfect composition so that we can benefit from it.

[00:55:14] **Dave:** So colostrum wants to be a food. Jalapeños don't want to be a food, which is why you don't do any of this with jalapeños.

[00:55:21] **Sarah:** Well said.

[00:55:23] **Dave:** Is that your medical opinion, doctor?

[00:55:25] **Sarah:** Yes, yes. You can quote me.

[00:55:29] **Dave:** Oh man. All right. And the reason I can tell you about that is one time I did have food poisoning and a piece of jalapeño actually came out my nose. Yeah, that's one of the things I wish I could forget. So there you go. Do not put jalapeño s in your nose, but if you accidentally got some ARMRA on your nose, it would probably be beneficial. There we go. This is the TMI version of the podcast, for sure.

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[00:55:59] Let's talk about lactoferrin, which is one of the other things that's present. And I know I've written about that, I think, and actually in my Better Baby book, which is my first book on fertility, but a lot of listeners may not know about that. So it talks about lactoferrin, longevity, aging, gut health, and why it's in ARMRA.

[00:56:19] **Sarah:** Lactoferrin is interesting because it has a multitude of properties that make it beneficial for the human body. So it has pretty strong antibacterial and antiviral properties just generally. So taking that in along the mucous surfaces of your body is going to provide robust antipathogen protection, and we have a lot of data on that.

[00:56:42] I'm not as familiar with the data on longevity. I'd love to hear your perspective on that, but I do know that it's been studied a bit along those lines, and it's just one of the components in colostrum that make it so interesting. I think another one that's really interesting is PRP, which has been studied for its brain health benefits and actually is used in early intervention for Alzheimer's disease before that research was shut down by other special interests.

[00:57:11] So I think colostrum is so rich in bioactive compounds that we are just starting to scratch the surface to really understand the true breadth of what they can do for us and how they work synergistically in the body.

[00:57:25] **Dave:** My take on lactoferrin for longevity as well, there's four things that you have to do to not die before you start extending your life. Don't get diabetes. Don't get cancer. Don't get heart disease, and don't get Alzheimer's. And if you avoid those big four killers, massively, you're probably going to live a long time.

[00:57:48] And if I was to add two more, I would say don't get weak bones. That's why I talk about my Minerals 101 formula a lot. By the way, colostrum is going to help you not get weak bones. And I would say, don't blow out your kidneys. But usually, all of the kidney stuff, the bone stuff, even cancer and heart disease are downstream of diabetes.

[00:58:05] But since lactoferrin has pretty potent anti-cancer properties that you would never talk about because everyone knows that food can't stop you from getting cancer, only drugs can do that. At least in the US. You can go to other countries that can, but in the US, it's illegal for food to have those effects, or at least for you to talk about it. But I can.

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[00:58:22] So there are studies. If you just go to any search engine besides Google, which doesn't work anymore, you could then search for lactoferrin in cancer and be like, oh my gosh, there's a huge amount of research here. And then, because it's modulating your immune system, you get less inflammation. Inflammation is one of the things that makes you old. So turn that down, live longer. And then, of course, fixing your microbiome. Could that make you live longer? Yes. And then the fact that chronic inflammation is also tied to heart disease.

[00:58:50] So if lactoferrin is inherently anti-inflammatory, but in a beneficial way, not, say, taking ibuprofen or something, which has a downside, it seems like it would be a longevity compound, but we may not have life extension studies, but we do have health extension or health span expansion studies. So I'm in on that as something you want more of. What I don't know, can I take colostrum every day? Should I pulse it? Is this a lifelong thing? Talk to me to about that.

[00:59:20] **Sarah:** It absolutely should be taken every day. Those barriers will generate every two weeks. They're right for repair, but they're also under constant assault. So it means that you can appreciate the benefits sometimes very quickly within a few days of starting, an ARMRA Colostrum regimen, but you do need to continue it.

[00:59:41] So it's meant to be a daily use product. The number of servings you take is something that you can modulate. So taking more of it during times of high stress, or travel, or cold and flu season, or surgery is definitely something that I recommend and has a lot of benefit. Really, there's no max dose because, again, it's a food. But you can plateau on the benefits you extract from it.

[01:00:06] It also has such potent benefits for the mitochondria. And so I think a lot of the anti-aging effects that customers tell me about just have to do with its effect on cellular metabolism and helping your cells to buffer against the accumulation of stressors that really drive a lot of age-related changes that happen within different organ systems.

[01:00:29] **Dave:** It makes so much sense. Final question here is-- I'm just plumbing all the questions I have. And I hope as you listen to this, that this is interesting for you, dear audience, because if I'm adding something potentially to my permanent regimen, at least for a year or two to see what it's doing, I want to know all the do's and don'ts.

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[01:00:49] So I know that the powder that ARMRA makes is stable at room temperature, so I can just throw it in my luggage. I can have it on the counter. It's actually next to my espresso machine, but you don't put it in hot water. You put it in cold water, or in your mouth. It's just there because then I'll remember to take it. And if I do that, though, I'm also thinking, what happens if I put a scoop of it in a nasal sprayer? Because then I could get it in my sinuses, but that's probably going to spoil pretty quickly, like milk would spoil, right?

[01:01:16] **Sarah:** I think if you were to combine it into something, I would probably refrigerate the product and use it within 24 hours.

[01:01:24] **Dave:** Got it. So that's not something you'd want to do. Okay. Let's see. I've got a comment from the Upgrade Collective, our audience here. And this person says that she's been taking colostrum for 10 years, started with raw colostrum from a raw place until the government said it was harmful. Then they said it was for their dogs, and then they stopped selling it. And now there's a powdered formula.

[01:01:49] Here's what that person's doctor reported, that they have the bones of an 18-year-old, and the person is 69, and they think it's the colostrum, but it's the same thing. They're having a hard time getting it. They're actually putting it in Danger Coffee now. And guys, I think you want to not heat it that much. So unless it's iced Danger Coffee, I would take it before or after the coffee. That's what I do.

[01:02:10] And I really do endorse ARMRA specifically because we just talked about the sourcing. What cows is it from? How are the baby cows treated? And then you have a proprietary process that you're actually patenting on how you're making it shelf stable and still immune active. Because I've had colostrum that doesn't do anything as well.

[01:02:28] So I think you demystified a lot of it, which is actually really a noteworthy achievement in and of itself. So those are the broad things. And if you're listening, we talked earlier about snake oil. We just talked about hair and skin. It slices. It dices. It does this. It'll probably also has a built-in drill press.

[01:02:50] But the lower level in biology you get, the more magical something seems. And when you get all the way down to quantum-level interactions, which we know where quantum systems-- we didn't know this five years ago. We just thought we were. But the study that came

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out that shows when your heart beats, the proton spin of every proton in your brain reverses with your heartbeat, that means we're quantum entangled.

[01:03:14] So we even know how any of that stuff works. All I can tell you is that if you improve something one layer down from where you used to, you see all these upstream effects. And most of the big pharma business has been looking at the very, very surface. And we're talking about like the bones, the foundational stuff.

[01:03:32] And I think that using this unique form of dairy as a signaling molecule to tell the body what to do, it is biohacking. And if you've read Smarter Not Harder, my new biohacking manifesto book, all of biohacking is ultimately use the environment around you and inside of you to send a signal to your body to get it to do what you want.

[01:03:54] And the signal from colostrum is be young and healthy and have a strong immune system. So send it that signal. Who knows what you might do? That's my take on this, and I'm willing to be proven wrong. If I grow a third eyeball in the wrong place a year from now, I will tell you guys, but I don't think so.

[01:04:15] **Sarah:** What you said resonates so much. The body has the amazing ability to heal, repair itself, and become as vibrant and vivacious as you imagine it to be. You just have to equip it with the right tools and nutrients to do so. It knows what to do. It knows what to do.

[01:04:34] **Dave:** It does know what to do. And as you guys know, I always ask people who've come up with a new product, the same way I did when I started Bulletproof years ago, and I'm not with Bulletproof anymore, but same thing. I support entrepreneurs who are doing the same kind of things that I did when I was just getting started. I'm like, hey, give our listeners a discount to say thanks.

[01:04:54] So try ARMRA. That's A-R-M-R-A. So try armra.com/dave. Use code DAVE. They'll give you 15% off your first order. I'm not kidding. Try it. I much prefer the powder that you just put in your mouth. I hate to tell you, I don't really like the watermelon, the little packets. The flavor on that isn't my favorite.

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[01:05:13] I drink them when I travel, but I would get the canister. And then do that. And you say one a day. I would do three or four scoops a day for the first while, and just see if you notice a difference in your sleep, and your skin, and the way your eyes work, all sorts of stuff.

[01:05:30] It's not that subtle. I think this is a very potent product, and it's one that I'm happy to include in my daily practice. And like I said earlier, it's to the point that I'm paying for extra shipping to get it for me before I go on a trip because flying to Turkey, I really don't want to get sick on my way to go speak at Harvest Series at the Six Senses Resort.

[01:05:50] That would be bad, to be like, hi, I'm Dave Asprey. I'm here to talk about biohacking, and I'm sick. I'm not going to do that. I never do that. So anyway, that's how much I'm convinced after having tried it. And like I said, I didn't try it because you sent it to me. I tried it because I bought it because I was interested. So there you go guys. Try ARMRA.com/dave. A-R-M-R-A is how you spell that. It is worth your time.

[01:06:11] **Sarah:** Thank you so much for having me.

[01:06:12] **Dave:** You're welcome. And just on a personal note, there aren't a lot of medical doctors who are willing to go through the pain of medical school and the incredible amount of doing a residency. I am grateful for your sacrifice to do that, to heal people, but then to do all that and then still have the presence of mind to be curious and ask questions, and then to branch out into environmental medicine and functional medicine, and to do it, I know some of that, like me, is enlightened self-interest. I was going to die if I didn't. But anyway, thanks for doing that because you're going to help--

[01:06:45] **Sarah:** Thank you.

[01:06:45] **Dave:** A lot of people with this product. I'm pretty excited.

[01:06:47] **Sarah:** Thank you for your championship. I deeply appreciate that.

[01:06:51] **Dave:** I will see you guys on the next episode. And if you're wondering what to do with your time now, I think you should go to dangercoffee.com, and you should make sure you have Danger Coffee so you have the minerals. And then you should pick up your ARMRA. Let's try it. amra.com/dave. And the reason I want you to do that is if your body has all the minerals

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you need and you take ARMRA as a signal to grow, I bet you'll grow better. See you on the next show.