The Gradual Transition to Better Animal Nutrition: A Special Interview With Dr. Richard Patton

By Dr. Karen Becker

KB: Dr. Karen Becker
RP: Dr. Richard Patton

KB: Hey, I'm Dr. Karen Becker. I'm so excited today because I have the one and only Dr. Richard Patton, animal nutritionist, joining me today to talk about all things pet nutrition. Now if you don't know who Dr. Richard Patton is, it's a little bit shocking because he has been one of the, not just pet food formulators, but he's been an animal food formulator for, gosh, Richard, dare I say, approaching 50 years?

RP: Yes.

KB: Which is an amazing way to spend your career, helping animals eat better food. I also believe that you have formulated a whole – for not just dogs and cats, but I think zoo animals, lots of wild carnivores, for zoo diets– You have formulated, I believe, around the world. For those of you who may not know your background, tell us a little bit about your very colorful and quite insightful career as an animal nutritionist.

RP: Well, Karen, that's a gracious introduction. Thank you. I have been at this a long time as you animated. Probably I'm the oldest surviving animal nutritionist consultant in captivity, simply from showing up and doing my best every day. I've been a nutrition consultant for 40 years. I have worked in, I think, 27 countries. Much of my tenure was helping zoos and making diets for zoo animals.

This then led to a perspective of what you might call comparative animal nutrition. These contrasts give you a lot of insight as you go along. One would hope that in a person with the experience, such as myself, somebody who has spent all these decades thinking and struggling about how to get it done, that I do have something to contribute. We want to continue. What we all want to do is what's best for the animal and the owner of the animal. That's my ambition when I get up every day.

KB: Richard, when you, because you've been doing this so long, you have seen – I hate to call them nutritional hot topics. But honestly, you've seen these nutrition trends. When I say crises, you have a pretty good literally patent statement about nutrition not being a crisis. But you've seen these monumental – many actually – dozens of monumental nutritional issues come to the forefront of veterinary medicine over your 40-year career. Talk to me a little bit about how you arrived at your kind of patented statement that, "Nutrition is never a crisis." Because you actually have seen lots of nutritional problems come about in your time. How did you alive at your conclusions?

RP: Yeah. It is kind of a perspective of mine of long-standing that nutrition is never a crisis. It just slowly gets worse and worse until something else is a crisis. And then veterinary medicine, the predominant training is crisis-oriented. When this nutrition finally breaks into a crisis, the

veterinary profession has the standard stimulus that they can react to. The truth of the matter is that an animal that presents a crisis at the clinic may have been in inadequate nutrition for months or years. It's because of the exquisite adaptability that evolution has built into everything, that our own diet can seem to work for a while.

KB: Yeah. I think that that's probably one of the trickiest things, even for veterinarians, to understand. My nutrition training in veterinary school was minimal at best. That's gracious. Minimal nutrition training. I don't believe veterinarians are trained to recognize nutritional disease in its process. We don't look at nutritionists as a contributing factor to many of the chronic degenerative diseases plaguing pets today. We're not looking at that.

The other thing that I was not taught in vet school is that you can be obese and profoundly nutritionally deficient. Just overfat and undernourished is a common mammalian issue in North America. You've highlighted that a lot in your writings and in your lecturing.

RP: Yeah. The 900-pound gorilla in the room. You and I are well aware of my rant here. It is the excess soluble carbohydrate that's in the average pet diet. The culprit is kibble. The point you made about these trends that come and go, and you and I have seen a lot of – Like in human nutrition, there are these popularities. They come and go. There's the Atkins Diet, the South Beach Diet, the keto diet. They're all just variations of one theme. It's lowering the soluble carbohydrate. It benefits anybody.

KB: Back up and talk a little bit about – A lot of people will say, "You know, Dr. Becker, you're always bashing kibble." I'm sad because I don't want to bash anything on this Earth. However, kibble is a little bit like cereal for kids. It will sustain a body, but it doesn't necessarily nourish a body. I don't want to, in essence, bash kibble. But the truth is, it may not be providing for scavenging carnivores or omnivores even, appropriate nutrition. You formulated some kibble in your lifetime, haven't you?

RP: Quite.

KB: Yeah.

RP: I think – And it's all part of the perspective that one finally brings to the discussion. In the point you're making and I've alluded to earlier about adaptability, a bag of potato chips and a coke will get you to the next day just fine. But we all know that a lifetime of that diet's going to be shorter than it ought to be. This is, again, because of this adaptability that lets you feed a wrong diet and seem to be getting along okay.

KB: Yeah.

RP: The excess soluble carb, which is a failing of kibble. It needs to be addressed. I, like you, it's not that I'm against kibble. The kibble industry is getting better at lowering their carbohydrate. There was a day when there was the type you might call the Ol' Roy Farm Special. That was 50% soluble carbohydrate. Well, these people, they're not stupid. They didn't get to be the behemoth industry they are by making wrong decisions. They're aware of the fact that soluble carb is a

discussion among professionals. They're doing what they can to lower it. I commend them for that.

But they're still – I mean there's one out there that says that they're 25% or 23% soluble carb. Well, they're fudging. If you do that math, they're closer to 30%. But 30% is a long ways down from 50%. They're moving in the right direction. They will continue to move in the right direction.

The point is that the primordial diet, the wild world that was this operating stage for the evolution of everything for billions of years, it had very little soluble carb. Our whole problem is nature made it very hard to find soluble carbohydrate. They adapted to that reality. But mankind made soluble carbohydrate very easy to find. Today we come to this problem where we're all consuming too many soluble carbs.

KB: And, might I add, they taste delicious. Soluble carbs are cheap. They're easy to find. They're addictive. They're highly addictive. Like you said, it's a great way to get by because you have no mammals really argue eating them. They're delicious and addictive, so no one's arguing, other than from the nutritional standpoint, it's not ideal. It's not ideal for us. It's not ideal certainly for carnivorous cats and dogs.

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So here's my question to you, Richard. You were certainly formulating when the very first cases of dilated cardiomyopathy (DCM) that were diagnosed in cats in the '80s, when we figured out that cats need supplemental taurine in meat-based form. The kitties were not making their own taurine. You've been through this now like three times in a row. You've lived through the DCM meltdown. This is round three for you. You are a veteran expert when it comes to – You were around when it first broke and people were like, "Hmm. Didn't know that was going to happen with cats." Then we started supplementing taurine with feline diets.

Now, here's my question. Supplementing taurine, one preformed amino acid, is a start at preventing cats from acutely dying of heart failure. But what about the fact that these diets are still probably other amino acids-deficient, specifically maybe the sulfur amino acid-deficient coming from meat? So supplying one preformed amino acid doesn't necessarily make a poorly formulated low-protein or protein-deficient diet better. It's almost like putting a Band-Aid on a gushing wound, isn't it?

RP: I would concur. There is the kind of tendency to put a Band-Aid on a blister when what's really needed is you need to change the pair of shoes. You're right. I've been there through different iterations of this discussion, beginning with the work at University of California (UC) Davis back in the '70s, where they first showed that cats had an issue with taurine. But we've got to keep this in perspective. The cat can't make taurine, but in its primordial setting, it didn't need to. It was an exquisite hunter. It always had fresh meat. It always had adequate taurine.

Now, the dog supposedly can make taurine. We'd look at this and think, "Well, the dog is evolutionarily advanced compared to the cat." Well not necessarily so. Because the dog was a poor, not exquisite predator that the cat was, evolution presented the dog with a mutation to make

taurine, and the dog ran with it. The dog uses it. But this was a necessity because the dog didn't get enough taurine as a predator.

But you see, making your own taurine is at a cost. It uses cysteine. The body has lots of other things to do with cysteine besides make taurine. It isn't a case of one's way ahead of the other from an evolutionary advantage. It's just this process of evolution going forward and things fitting into niches as best as they can. We're back to the cat. The cat does not need taurine if it's on the right diet, if it's on its primordial diet. It's getting plenty of meat and plenty of taurine.

So what the people showed in Davis in the '70s – James Morris and Quinton Rogers may have been on – is that if you take a cat off of its all-meat diet and you start to give it grains, it gets into taurine deficiency, and you have to supplement. Well, Madison Avenue gets a hold of this. The kibble gets a hold of this. Today, what we've got is kind of like this finger-pointing and name-calling it in the marketplace where they're saying, in essence, to the consumer, "Oh, look. We have taurine. They don't. We're better than them. Buy us." When really, the fact of the matter is if you have to add taurine to have the diet be adequate, it wasn't a naturally balanced diet to begin with. Now, we come to the dog. I don't mean to monopolize the discussion. Jump in.

KB: This is beautiful.

RP: It seems that this enlarged heart discussion seems to have descended from out of nowhere. We're all kind of doing the Chicken Little drill and running around saying, "The sky is falling." If we go back and look carefully, this has probably been accumulating for a while.

KB: Yes.

RP: To add some perspective here, the Centers for Disease Control and Prevention (CDC) has reported 519 cases over the past year and a half. Well, if we're talking enlarged heart, the problem in people is very prevalent. It would have been millions of cases. We have to kind of ask ourselves, "Out of 120 million cared-for pets in the country, there's been 519 in the past year and a half with an enlarged heart. Let's not get too overblown about this problem. Let's gather as much information as we can and try to understand."

Now, I believe, Karen, part of the thesis you say needs to be conserved is, in essence, an issue of protein quality. I agree. This taurine is made from cysteine and cysteine is part of a balanced diet. If you are low in cysteine, you may well be, in the dog, low in taurine, because you don't have enough spare parts to build the taurine. But the other thing you have to keep in mind here is that I think the world production of taurine every year is like 5,000 tons. Half of it is going to the pet industry.

KB: Yeah.

RP: We have to, on the one hand, be sure that the diet is properly balanced with regard to vitamins, minerals, proteins, everything, amino acids, essential amino acids, to begin with. We have to go back and look at, "Well, is there adequate taurine? Is there adequate cysteine?"

KB: Richard, what are your thoughts about – Over the course of the last 20 years, many manufacturers are trying desperately to reduce the number of feed-grade synthetic vitamins and minerals in their food. Two things are happening. Manufacturers, thankfully, are going from some of the cheaper, poorer, absorbable oxides and moving to amino acid chelates, so they're improving the quality of synthetics going in, in terms of bioavailability. But they're also working on just getting synthetics out of the formulas, which is notable and, I think, respectable.

However, I think that there's a chance that because The Association of American Feed Control Officials (AAFCO) feeding trials are, in my opinion, incredibly deficient. Six months of feeding an animal food without measuring your nutritional parameters in the blood stream I don't think is an adequate judgment of a food that you could feed a lifetime.

We'll talk about your opinions of AAFCO feeding trials in a minute. But what are your thoughts about the fact that as companies try to eliminate synthetics from their food, there's a chance that we have not taken into consideration processing techniques, and the fact that extrusion or heating these foods may also deplete cysteine and methionine. Oftentimes, [they] have to be refortified into the foods, because the processing techniques alone are impacting amino acid quality, amino acid concentration, amino acid viability, absorption and digestion.

Two questions: Number one, processing plays into protein quality. But the raw materials already going into pet foods are not human-grade. Talk to me about quality of raw materials, processing techniques and AAFCO feeding trials. That's a lot. That's a big question. I'm glad you're taking notes.

RP: Let me put some perspective to the discussion in this regard: synthetic versus natural. I did a lot of work in the past with vitamin E, which is one place where the natural advocates have a very valid point. It has been easily proven. I shouldn't say "easily proven." I should say "well-proven."

Vitamin E, as you and I call it from the smokestack industry, is available in eight isomers, all with some amount of vitamin E potency. Nature deals in just one form. It is the most potent act contributing the vitamin E activity that's needed in the diet. We showed this work in black rhinos in captivity. We were able to draw blood from ear vein while they were eating. We fed natural E and synthetic E, and then did it again, put them back on natural E and then synthetic E.

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What we saw was that when they were on the natural E, the kind that's in fresh forage, for example, or in a freshly killed animal, prey animal. When the rhinos were on this, their blood titers went way above normal. When they were on the synthetic, it went way down. As far as I'm concerned, this setup the discussion and the perspective that I always bring to a vitamin discussion. There is natural and there is synthetic. Natural, I think, is going to tend to always be better.

The other part of this discussion that I think everybody needs to keep in mind – You know, if the AAFCO requirements, providing these minerals, are so sacred and sacrosanct, you need to explain something to me. The coyote, the dingo, the feral dog, the mountain lion and the tiger, all these carnivores in the wild, they have thrived for millions of years without ever seeing the first

nanogram of store-bought vitamin. This nutrition game is easily dismissed by someone as kind of straightforward, but it's a three-layered chess game.

If you read, not AAFCO, but the National Research Council (NRC), which informs AAFCO, when they have a discussion on a vitamin, about every discussion ends with the closing sentence, "But we suspect the gut microflora make all the vitamin the animal needs." We then get into this interrelationship between the excess soluble carbohydrates promoting the wrong gut microflora that don't make the B vitamins. If you simply put the animal on a balanced diet, low in soluble carbohydrate, the proper gut microflora predominates, and the vitamins that are needed are manufactured.

KB: What are your thoughts – I could not agree more. But what do you do when people can't maybe make a fresh, meat-based diet and they're left purchasing a shelf-stable, processed diet that has it on the shelf for a year and probably will sit in a warehouse for six months and then those nutrients have to be included because the diet without them would be deficient. There's no way to skirt that. You're left having to supply some synthetics for people who can't make homemade diets or purchase homemade diets that are using whole foods for their sources of nutrients. There's no way to skirt that.

RP: Yeah. In a perfect world, every animal, every wild animal as well as pets would be on the diet that you and I recommend. But the reality of the world is, as I simplify it in my discussion, a three-legged stool. You've got exercise, which everybody gets. Exercise is good. It's sometimes quipped that, "Exercise is the best diet." Then there's the economy and there's convenience.

The typical pet owner, when they're buying or making a purchase decision, it's those three things. As long as they're exercising economy and convenience, we're never going to get them to discontinue kibble. As you say, if they do want to do better but they still have these constraints, my advice is always, "Look. Feed a raw, balanced diet to the extent that your budget will afford it and you've moved in the right direction." Clearly people with little dogs and cats, their shock is less of an issue. But if you've got four Rottweilers in the house with you, feeding a freeze-dried diet is going to break the bank.

KB: But you bring up a really important point, Richard, that out of the 14 meals that you're going to serve your massive Great Dane, if you can replace one or two of those, two out of the 14 meals, if they can be fresh meat-based diet, you are serving the body well. Likewise, if you're going to trim, if you're making a salad and you're trimming off the ends of the carrots and you're trimming your meats for your family, you supplying human-grade scraps, fresh food scraps for the animals in your house is a great addition. Every bite of something unprocessed you're putting in is better than nothing. I think that that's an important point to make.

But back to the fact that 96% of people who love animals are feeding highly processed diets. I feel thankful that many of these manufacturers are trying to reduce the number of synthetic vitamins and minerals in their food. I think that that's awesome. I think what happened is they discounted the processing techniques playing in to how extrusion impacts microbiome, how extrusion impacts amino acid digestibility, how extrusion impacts digestion and absorption of certain nutrients. I think that that may be playing more so into amino acid deficiency than we may realize.

Now, no one's studied that because, there again, feeding trials were not required to study it. Give me your thoughts on feeding a trial diet for six months and 6 out of 8 dogs have to remain alive. But they're not testing any parameters, no blood values and nutrients, no remaining nutrients in the bag. How confident are you, Dr. Patton, in AAFCO's "gold standard" of feeding trials in providing reassurance to pet parents that, indeed, you can feel confident feeding the same food that passed a feeding trial from the time a dog is born to the time it dies and you should have no concerns about long-term nutritional intake? Are you convinced that that really is a gold standard?

RP: Let me begin first by saying that it's enough to attack AAFCO for what they're not getting right in my opinion. They are well-intentioned, capable professionals. Their ambitions are the same as ours. It's by an open dialogue that we can get things off a dead center. Regarding the AAFCO approach to things, you know, they say, "You've got to have AAFCO recommendations if you want our blessing," or "Produce a feeding trial. Show us that your food works."

I think your points are valid, very well taken. How much do their feeding trials really define a diet the way it should be as adequate for pet nutrition? I concur. My arguments here go even further, or I have an additional argument. Let's say you want an AAFCO approval of all life stages that you're willing to do the feeding trials. Well, this produces something like 100 puppies for no other reason than being a lab rat for your efficacy. I think this is highly irresponsible and I want no part of it.

I'm not going to – None of my clients are doing AAFCO feeding trials of any kind for all life stages. They want to do maintenance where you can take an existing, already alive animals with their place in the world, and you want to put them in one place and see them for six months? We have more insight on that diet than if we didn't do that trial. Your point, I think, must be then taken up. But do we have enough information to say, "You're good to go forevermore because we fed you for six months?" No. You do not.

KB: Well, most importantly, Richard, we're not measuring anything pertaining to nutrition. We kept an animal alive for six months with the food. That's what we proved. With an AAFCO feeding trial, the animals maintained a pulse and heartbeat. The blood parameters that we measure – albumin, CBC – that is not a measurement of any specific nutrient. That's not a measurement of antioxidant status. That's not a measurement of how long that food will be viable once it's opened. We're not really measuring – We're not measuring microbiome. We're not measuring digestion. We're not measuring absorption. We're not measuring anything other than sustenance for six months.

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I think that that may be part of the reason that we're in the situation that we are in with some of these emerging nutrition-related diseases. It's that we're using the wrong barometer of how nutritious a food could be over a lifetime, because we're not necessarily measuring those parameters. I think that that's partly why we're in this trick bed with DCM and potentially a whole host of other diseases.

What are your thoughts pertaining to – Three questions. I had a feeding trial question, and then I had a synthethics question. What are your thoughts about – When you're formulating for your own

clients, I know that you are like me and that your desire is to formulate with the least amount of additions when it comes to synthetics. Talk to me a little bit about the fact that things like selenium – It can be really hard to find – unless you're going to use Brazil nuts – food-based sources of even vitamin E. It's really hard not using synthetics. There are some nutrients, like zinc, that are just hard to come by – vitamin E – that are just hard to come by. What do formulators do? Because your options are food or a synthetic. Those are our two options.

RP: The synthetic vitamin E – I mean, the people who make it think they had adequate proof that it's fully bioavailable as much as any other, as the natural vitamin E. Well, after years of battling, we got them to admit, "Well, it's not as good as natural vitamin E, but it costs much less, so just feed more of ours." They take a negative and turn it into a positive for them. They sell more.

There is the continuing kind of piling on of these different issues. For example, AAFCO mandates 100 parts per million zinc. Well, I have to really shake my head at this one. Having made diets for animals of all kinds all over the world for decades, that 100 parts per million is four times the need of zinc of any creature I've ever known in my entire time at applying my best thinking to this game. I think that for a state department of agriculture to be legally allowed to red tag an entire production of a pet food because it has 80 parts per million zinc instead of 100, this is a complete loss of perspective.

KB: Yeah.

RP: Somewhere between the fact that nature's got it right, everybody thrives in the wild and, on the other extreme is, everyone's buying kibble from the grocery store, we have to find this [inaudible 33:01]. That's where I feel your questions are. It's where do we land at the moment, going forward in all this turmoil and discussion? Where do we land with our advice to help as many people are possible, as many pets as we can, and harm as few?

KB: Yes. That is my question. Because we know – I am like you. I am thankful that I live in a country that has some nutritional parameters that we can look at and review. I am. I'm very thankful. Do I think that those parameters step forth from AAFCO are not necessarily entirely accurate or even healthy long-term for the fact that for some of those nutrients, there is no maximum level. There are a lot of minerals that can be found in foods. If that is fed over time, what are the long-term consequences of feeding really high levels of some minerals? That may be a detriment.

Are you in favor, Richard – Do you believe the time is coming that we will be, as professionals, willing to consider the idea of revamping what we consider optimal nutritional requirements for dogs and cats. Do you think that that's coming?

RP: I'll answer that this way. With all due respect, I think what we're headed towards unequivocally is that the entire AAFCO approach is going to become passé, kind of like a ghost ship. AAFCO can say what they want, mandate what they want and play their word games about, "We don't enforce. We let the state departments of agriculture enforce." Well, this is the passing of the bump. People are going to get fed up with it. They're going to say, "Why do I have to have all these added ingredients to meet your requirements, when over here, there's a diet with seven

ingredients that has been in the market for 15 or 20 years?" This is the feedback I want. "What works? What do people keep buying?"

The other perspective on this entire discussion – You have gotten this question many times. Invariably, I get it after a talk, when there's a Q&A. Someone will say, "Our 14-year-old Labrador was just diagnosed with cancer. What should we be feeding?" Well, of course this is a heartbreaking question. You deal with it as best as you can. What I never say to that pet owner at the time [inaudible 35:44]. What I always try to get around to is that, "The time to be asking that question was 14 years ago." Let's get them weaned on mother's milk. [inaudible 35:56], and then let's feed them correctly. Don't worry about when they're puppies. This is a short time. They're going to be puppies for a year, relatively speaking. They're going to be family members for 15 or 18. Let's get them fed right. I keep kind of bouncing back to the broad perspective here. I don't mean to be dodging here, so maybe you want to come back at me with some of these questions.

KB: That's a really good discussion. Richard, when you think about all that you've learned from all of the perspectives that you've been able to acquire over the last 40 years, what are some of the most important things in terms of your takeaways as an animal nutritionist? You've talked about the soluble carbohydrate issue being a big one.

Talk to me a little bit about some of the other – If you're going to pass the torch to an animal nutritionist, what are some of the other glaring issues, in your opinion, that we need to be thinking about that we aren't? The soluble carbohydrate issue has just come about for all of us, front and center, in the last 10 years. We were like, "Hmm." We're calculating the carbs. Especially with these grain-free diets, they're actually becoming higher. We have higher levels of carbs in grain-free. We're all kind of having this discussion about, "Hmm. This is a lot of soluble carbohydrate." Are there other things that you believe we should be thinking about, looking at or discussing that we aren't, Richard?

RP: You know, I don't. I think that the excess soluble carbohydrate is only the problem. All the others, they can wait. I'll attack them when we get this 900-pound gorilla out of the room. I mean, to worry about the level of zinc I think is like arranging the deck furniture on the Titanic. There's this much larger concern that I am completely preoccupied with. Now, more to the point of your question, to use your own words, which I so love, "What do I want the world to know?"

KB: Yup.

RP: I think maybe it's encapsulated in this observation that I'm always so aware of. Despite formal training as an animal nutritionist, just about everything I know of any real value was taught to me by animals and the owners of animals. I only advise the pet owner to be sure and listen to their pet.

When they have a bowel movement and you're looking at their feces, you want it to be a cigar that you can cane across a shag rug. If they're squirting puddles, this isn't necessarily bad, but it's a red flag. You want to be sure and listen to what your pet is telling you.

If they're eating feces, I'll ask, "Is it the horse feces or is it their own?" There's a big difference. Most creatures will eat feces of other species, but if they're eating their own, this is a different

message. Are they eating grass? Is it just so that they can vomit up for a moment? Okay. That's one thing. Are they eating grass on a more consistent basis? Be sure to see what the pet is doing and hear what they're doing and listen.

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KB: Yup. Good advice. Okay. Back up and tell me, over the last 40 years, have you switched how you feed your own dogs? Or would you say you're basically feeding about the same style you were feeding 40 years ago? Like your own pet.

RP: Questionably. When I was earlier on in my career, I drank the Kool-Aid. I think we all do this with the best of intentions. The thing that has to happen is you must be open-minded and humble, that you may not have all the information you need, you may not be making the best decision to stay open-minded and recognize that the truth can come from anywhere, including, God help us, a veterinarian.

KB: Yeah. That's true.

RP: You want to be willing to connect the dots. For example – I'll be in perspective. Back again on my rant about soluble carbohydrate and the fact that there's none in nature, well, saying people should be asking themselves – Enlarged hearts were not a problem in dogs until just recently. If we've been doing something in the past 50 years diet-wise, then I'll step with the evolved biochemical machinery. I keep coming back to the same answer. All this starch and sugar is not doing anybody any good.

KB: Yup. You're spot-on. You're spot-on. Richard, I have to ask, at what point did you decide to start feeding a fresh meat diet to your dogs? Was that early on or would you say that as your evolution as a nutritionist, you started feeding kibble and then you started adding in fresh meat recently? Because you're one of the few nutritionists who advocate biologically appropriate foods. You're one of the very few that recognize that dogs and cats do best eating a very low-carb, meat-based diet.

RP: I believe that probably God and St. Peter were most exasperated with me from the very beginning that I wouldn't seem to learn my lessons. Because one of the very first things I did was I was part of a group that made a diet for tigers in captivity. It was wildly successful. World-record, six cubs born in captivity. As a matter of fact, that same pair of parents went on to set another world record on that diet. Thirty-six cubs born in captivity, also feeding an all-natural diet. That same team at the very beginning of my career was responsible for the first golden eagle chick born and raised in captivity. It was on a natural diet.

From the beginning, the seeds were planted in my thinking. But I went on to work for big kibble and the dietary management of disease from the veterinary perspective. All along, I'm accumulating this insight. Yeah. You get to the point where – There was a day when I would have said, "Natural's not good." If you had told me the day would come, I would be here one day when I would say, "It's a better way to go," I would have called you a liar back then.

KB: Sure.

RP: But one of the things that I think is indispensable here is that we must stay open-minded and be willing to learn new insights as they present and not let all the street chatter dogma keep us from the real trends.

KB: I, not just myself, Richard, but I think that the entire fresh-feeding community, one of the reasons that you are so well-loved – and really, we're so thankful for everything you're doing – is that you're one of the few nutritionists who have been able to evolve in your professional path to recognize these truths. We appreciate you for doing that, because it's the voice of commonsense, but it also is the voice of reason when it comes to what makes sense or why we would pick a less processed diet for our pets.

Sadly, there's just not a lot of nutritionists supporting our desire to feed less processed foods. You're one of the few, but it came about because of your desire to see a bigger picture and your knowledge base evolve through your career as your education did. I really appreciate all that you're doing for all of us looking to have a bigger, broader conversation than what most nutritionists are willing to have. We appreciate your open-mindedness throughout your entire career.

RP: Karen, you're kind to say these things. Thank you. But the approach – I'm not abandoning science at any point. I think that the really confident investigator will not dismiss a counterpoint to this. What he'll say is, "Show me your data." When I look back at the data that I've accumulated over 40 years, I'm going to take my position today. I'm not going to say to somebody, "You're wrong. I'm right." I'm going to say to them, "Show me your data, because I think mine's better. I think that soluble carbs are causing us problems, along with other things. I want that fixed."

KB: Yeah. Do you see, Richard – Because you've formulated a lot of kibble in your life, do you see that this is a viable possibility with the cost of meat meals being what they are? Do you think that consumer demand, that consumer knowledge, that consumer push is enough, which is going to drive the price of pet food way, way up? If they're going to use less soluble carbs and more meat meals, that's going to change the price of pet food. Do you think companies will move in that direction really?

RP: The fastest growing segment in the pet food community is freeze-dried raw. I like what this is saying. But it's still a tiny sliver of an absolute behemoth industry. We're just going to have to keep playing our tune and making converts as best we can when we can.

KB: Yeah.

RP: I think as the pets move more from being chained to a hovel in the backyard to being a member of the family, people are going to tend to forsake their economy-first approach nourishing their family members. Their willingness to feed proper nutrition is going to gain traction and sticker shock will be less of an issue.

KB: Yeah. I agree with you. I do think that, over time, price will come down. As more and more companies enter the marketplace, it will drive cost down. I'm right there with you. Well, as always, Richard, it's a pleasure to get your insights and your thoughts. I appreciate all that you have done and all that you continue to do for the fresh food industry. I like your veteran insights on some of

these topics. Most importantly, I appreciate you being so willing to talk to all of us about your thoughts and ideas.

RP: Of course. I'm glad to help. Thank you.

KB: Thanks.

[END]