Chapter 38:

Interview with
Dr. Tetyana Obukhanych, Ph.D

Ty: So where did you get started? You're from Ukraine but did you go to school there?

Dr. Obukhanych: No, I left Ukraine when I was 17. So, I came here for education, to do college, graduate school and then I stayed.

Ty: Where did you go to college here?

Dr. Obukhanych: Mount Holyoke College, it's a small liberal arts school.

Ty: What did you study there?

Dr. Obukhanych: Biochemistry and then switched to immunology in graduate school.

Ty: Immunology, immunology that makes me think of, we hear this it's very popular nowadays to say that if you're vaccinated your immunized. Is it the same thing, is vaccination the same thing as immunization?

Dr. Obukhanych: Well, it depends. These terms are used very differently in academic immunology than the way lay people use it. So, the term immunization means something is injected into your body and that stimulates antibody production. So, the process of stimulating antibody production is immunization.

Now, vaccination is done not so much for the purposes of antibody production, although that's the part of it, but for the purposes of protecting from disease. So, we need to ensure that whatever antibodies that are there they're actually protective and not just any kinds of antibodies.

Ty: I know that one the vaccines that you're going to be speaking about here is the DPT or DTaP.

Dr. Obukhanych: Both, I will be speaking about both.

Ty: Talk about what is the vaccine? What's the purpose? And is it effective at preventing the diseases?

Dr. Obukhanych: There are three components to it and probably we are talking about pertussis here, right?

Ty: Pertussis, sure.

Dr. Obukhanych: That's part of the intention of the vaccine of both DTP, the old one, and DTaP the new one.

Ty: What's the difference between the DTaP and the DPT?

Dr. Obukhanych: So, DTP is whole cell pertussis. It includes whole cell pertussis component whereas DTaP, there is a little "A" in there, it still stands for acellular pertussis. So instead of including the whole pertussis bacterium in there, they isolate certain proteins from the surface of the bacterium as well as pertussis toxin and that becomes the vaccine.

Ty: So, the DTaP's the new one?

Dr. Obukhanych: The DTaP is relatively new one. It was developed in Japan in the 80s when it was noticed that DTaP, the old one, is giving problems, it's reactogenic and sometimes results in death. And in Japan, interestingly, only after two cases of death were reported after DTaP it was pulled and then Japanese researchers developed DTaP.

Ty: Okay, so there literally have been people that have been killed by the DPT vaccine, the old one?

Dr. Obukhanych: Right. Obviously, and it just depends how you judge whether that event is coincidental or causal. It's up to each government and each regulatory agency to determine and make a decision and action on that.

Ty: Talk about the current vaccine, the DTaP vaccine. How safe and effective is it at preventing those diseases?

Dr. Obukhanych: If we start on the level of safety first, that's what I'm looking into it. The thing is that they did really good job in making this vaccine safer than the old one in Japan and they do it by monitoring endotoxin levels in vaccines very strictly. They have certain requirements that endotoxin levels in vaccines have to be under certain limits.

In the United States, however these limits are applied only to drugs and not to vaccines. So, in terms of vaccines we have absolutely no idea what's going on in American vaccines or European vaccines with the levels of endotoxins.

Ty: What are endotoxins?

Dr. Obukhanych: What is endotoxin? Endotoxin comes from a bacteria, from certain types of bacteria called gram-negative bacteria. Pertussis is one of the gram-negative bacteria so natural pertussis has endotoxin on its surface.

Now, the problem is that endotoxin is very reactogenic and that's what was hypothesized was the problem with the old whole cell vaccine. So, it is imperative to remove that as much as possible from the new vaccine.

However, recently, as recent as 2012, Japanese researchers did investigation and comparison of vaccines that are produced in Japan using their own very stringent standards and vaccines that are produced abroad and imported to Japan. They found that the acellular pertussis vaccines that are produced abroad have as much endotoxins as the old whole cell vaccine. And this is not really picked up by any tests abroad and only in Japan they can distinguish that.

Ty: Wow, so basically what you just said, if I understand it correctly, is that the Japanese tested the new vaccine which they have made cleaner, less endotoxins, but because the fact that we are not – in the United States and Europe – not measuring that level of endotoxins that the new one for us is still as toxic as the old one was before they changed because people had died from it?

Dr. Obukhanych: It's not clear what vaccine industry is doing about measuring the endotoxin it's just that there are no regulations and so vaccines are exempt from those regulations that drugs have. It's a shot in the dark, really. A batch can differ from another batch and so some batches could be hot lots, so to speak.

Ty: What is a hot lot?

Dr. Obukhanych: Hot lot meaning the ones that are causing reactions and you would never know which batch you would get and which one is actually contaminated.

Ty: That's interesting because I just saw a documentary about a man that was thrown in

jail in the United States in 1996 for shaking his baby and he did eight years in jail. Then they later released him because they determined that his baby had been injected with a hot lot. They called it a hot vaccine lot. I think there were six or seven other children that died from that lot. So, what makes the lots different to where some might be more deadly than others?

Dr. Obukhanych: It depends how a vaccine is purified. So originally, they grow bacteria and then they purify components from that bacteria but endotoxin is very sticky and it could still stick to those components. It would really depend on batch per batch basis. It's unpredictable.

Ty: So, you never know?

Dr. Obukhanych: You never know and every single one needs to be tested for endotoxin to really know what's going on and if it exceeds certain level it has to be discarded. I think what's going on in Japan they really bring it down but there are no regulations in the United States.

Ty: Wow, so we're not testing for the endotoxin levels which could turn a vaccine batch into a hot lot that could be very, very damaging?

Dr. Obukhanych: We're not testing it. I think it's the government, sorry the companies that have to do it. Maybe they have their internal specifications but they're not letting us know what they are. And batches are not labeled with what amount of endotoxin they have.

Ty: What do you think about the—I think it was a couple years ago, California passed a law that mandates vaccines. What's your opinion on mandatory vaccines?

Dr. Obukhanych: Well it's absolutely impossible. It's absolutely inhumane to do that especially because vaccine safety is not established for 100 percent of people and it's always a Russian roulette who is going to be damaged and who's not.

Parents need to have a choice whether they are willing to take risks or not and has to be up to them. If they're not willing to take risks with vaccines they can go with other ways of protecting their children from complications from diseases.

Ty: Okay, so a couple questions I have from that statement. Number one, if they're not willing to take the risks, we don't even know what the risks are. If the vaccines aren't tested properly, we don't even know the risk of that vaccine because if it's a hot lot the risks are huge but if it's not then it's not as great of a risk but we don't even know.

Dr. Obukhanych: Yes, and that cannot be even determined from preclinical studies because lots that are used in preclinical studies would be very different from the ones that are in production. So, whatever testing is done may not even apply to a specific lot that you're receiving.

Ty: There's really not any informed consent at that point because we don't even know the risks.

Dr. Obukhanych: Well, I guess the informed consent is about that there are risks and they are unpredictable.

Ty: There are risks and we don't know what they are.

Dr. Obukhanych: Yeah.

Ty: So, you mentioned there's other ways that parents can protect their children. What are some alternatives if parents don't want to get their children vaccinated? What are other

ways to build their bodies?

Dr. Obukhanych: We have the immune system to do that and that's why we were given the immune system. Right now we think that the whole reason immune system exists is to be stimulated by vaccines produce antibodies and there is no really other purpose to it. But the truth is the immune system preceded vaccine development by a few million years.

So, what is it there for and it's about having those innate pathways that provide anti-viral defense, anti-bacterial defense. Also there are ways in which nutrition can strengthen those pathways there are actually certain vitamins are absolutely required for those pathways to work.

If you pay attention to nutrition and lifestyle and we ensure that those pathways are working properly, we still have infections, it will not shield us from infections per se, but those infections will go smoothly. The immune system will resolve them in due time and we won't have any complications or deaths resulting from those infections.

Ty: Wow, so really the key is, you mentioned certain vitamins stimulate those pathways, is to get nutrition into your body so your immune system functions and it fends off disease?

Dr. Obukhanych: Yes.

Ty: What are the vitamins that people could take that you mentioned about specifically?

Dr. Obukhanych: It's not about so much taking vitamins but having your body sufficient on all those vitamins. It doesn't have to be a synthetic pill, it can come from nutrition and this is how we were deriving our nutrition for so many thousands if not millions of years of evolution.

The immune system knows how to work with what was available naturally. It didn't have to wait until nutraceutical industry showed up in the last fifty years to make sure that the immune system works. The nutrients that to we must pay attention as far as viral diseases are concerned are vitamin A and vitamin C. For antibacterial ones vitamin D is very important as well as gut health, meaning probiotics because that helps to utilize the vitamin D and they work synergistically.

Now, actually it's kind of silly to talk about each vitamin separately because once you go through the list you see that all of them are necessary one way or another. And it's not only those vitamins like the alphabetical list of vitamins but also micro elements, minerals, phytonutrients. Pretty much everything in between the whole gamut of nutrition and lifestyle.

Ty: What foods are best to get these nutritional elements to our bodies?

Dr. Obukhanych: It depends where you live. For example, if you live in tropical country you'll have tons of vitamin D from the sunshine and you don't really need that. But if you are Alaska native and there is polar winter half of the year then you really need to rely on foods that are high in vitamin D and that has been part of their traditional diets for such a long time including the fermented fish and cod liver oil and all of that.

Ty: Yeah, the fish with a lot of fat.

Dr. Obukhanych: So, depending where you live you could afford to be vegan or you would have to really follow the native diets.

Ty: Right. And believe it or not, I've looked at the natives in Alaska and the diets that they eat and you would think that they would be really unhealthy but they're not. They're actually pretty healthy for eating diets that are high fat, lots of oils, they eat a lot of seal blubber, I mean it doesn't look like a diet that you would think is healthy but for them it works. So, you do what you have to where you live.

Dr. Obukhanych: Yeah and there is a really good research from Weston Price. He compared Alaska natives who were on their primitive diets versus those who adopted western diets which would include sugar, coffee, white flour and the level of health was very different.

On their native diets they were thriving and they were healthy. Once they adopted western diet their health would really suffer and they would be really affected by TB, for example, which again, TB needs a lot of vitamin D to be held at bay. So, once you change your diet then that's no longer the case especially in their territory that turned out to be detrimental.

Ty: Really, the key is to keep your body at optimal levels with nutrition so that it can fend off TB or other diseases. So the key is–you're an immunologist, right? So, you understand the immune system and so you just mentioned sugar. Is that something that we should be aware of in regards to its effect on the immune system and we want to stay healthy?

Dr. Obukhanych: Absolutely. Sugar has a very clear effect on a subset of cells called neutrophils. Neutrophils are cells that guard us from bacterial infections. They go through the body and if they detect bacteria where bacteria are not supposed to be, they engulf bacteria and this process is called phagocytosis.

When a sugar feed is given to people it has been shown that that reduces phagocytosis by neutrophils by twofold and that it can lasts for five hours. So, if you are eating a lot of sugar every five hours your neutrophils are not functioning properly.

You may get away with the physiological effects of that if there is no infection going on at the moment but if that happens while you are already sick and you keep eating sugar in the form of ice cream or whatever then you really risk developing or putting yourself at higher risk of your neutrophils will not be able to handle the infection.

Also, when people are diabetic and they're not controlling their sugar, their sugar is always high in the blood and they're the ones whose neutrophils are really performing poorly.

Ty: So, the neutrophils in this case, that's the part of the immune system that these sugar affects and it depresses neutrophil function by 50 percent for five hours?

Dr. Obukhanych: Yes.

Ty: If you're eating a diet that's high in sugar it's possible that your neutrophil activity has been decreased by 50 percent for a long, long time if you're eating it all the time. If you want to keep your immune system strong so that it can fend off these diseases without vaccines, really the diet, it's key and eliminating sugar would be the first step, wouldn't it?

Dr. Obukhanych: That would be the first step. And for babies who are most likely to be affected by bacterial diseases breastfeeding is what really fends off those infections. For example, in Sweden it has been shown that the risk of meningitis, Hib meningitis, was down four-fold in exclusively breastfed babies.

And the whole reason why meningitis even rose was because of the switch from breastfeeding to formula feeding that happened in the second half of the twentieth century.

Ty: Really, that's amazing. And so, in light of that, I didn't know that statistic, but it seems to me crazy at a hospital, it seems like they should keep the baby breastfeeding as long as possible but I've not seen that. My experience with our children is they try to get them on formula as soon as they can.

Dr. Obukhanych: Well, that's not really a good thing to do.

Ty: It's not a good thing, is it?

Dr. Obukhanych: I think it is the idea is that the breast milk is just nutrition. I think the establishment is not really understanding the immunological importance of breastfeeding and not paying attention to that, not encouraging women to breastfeed long enough and so we are reaping the consequences of that.

Ty: Yeah, and also when the baby is initially born, there's this film on the body isn't that good? From what I've read, that's part of the immune system or the nutrients that are on that film, on the baby, they are absorbing through their skin to help build immunity but we wipe it off as soon as they're born. That doesn't make sense to me in light of that research either.

Dr. Obukhanych: I'm not sure about that part. But that's something to look into.

Ty: Sure. So, the baby needs to be breastfed as long as possible because that's building the immune system. Then, in the case that you just talked about the four-fold decrease of meningitis just from being breastfed.

Dr. Obukhanych: Yeah, and instead of reversing meningitis by introducing breastfeeding or by encouraging breastfeeding they, of course, what they did they introduced a vaccine for it. So even though Hib meningitis in infancy is the problem of under breastfeeding the solution was not really to reverse that naturally but get the pharmaceutical product for it.

Ty: Why do you think that is?

Dr. Obukhanych: Why? Well, I guess there is no money in encouraging everyone to breastfeed but there's a lot of money in making vaccines.

Ty: How does that make you feel about the industry? These things that seem to be basic we're not being told about this and people are getting sick because they don't have this knowledge.

Dr. Obukhanych: So, without that knowledge we don't feel empowered. We're pretty much dependent on these pharmaceutical products from the beginning of our lives to the end. And something so simple as breastfeeding, nutrition, lifestyle choices that we can implement, staying away from sugar and knowing the importance of it, it's empowering.

Ty: Yeah, so that's something, if you were to tell the people that are watching this documentary, what do you need to know, what do they need to know about how to stay healthy if they choose not to vaccinate what's your message?

Dr. Obukhanych: They have to really follow Mother Nature and make sure that all the mechanisms that Mother Nature put into their bodies are functional. How do they know that? Well, you

don't really need to get a Ph.D. in immunology to know that you just follow what your ancestors did for many centuries. Their traditional diets that they were on and that they thriving and really there isn't much analytical thinking to do, you just have to eat healthy and stay fit.

Ty: It does make sense doesn't it because we see example after example of people that were healthy in their indigenous environment, eating what they had always eaten and then they move to the United States and they start eating what we eat here and they get sick.

It happens all the time. That's kind of the standard that we see now. That is what happens when people move away from eating what they've always eaten, eating natural foods into eating the processed junk.

Dr. Obukhanych: Yeah, and when you switch to processed junk of course the risk for chronic diseases go up but it's also for infectious diseases. I guess here this risk is a little bit masked by the fact that we brought many of these exposures down to very low numbers but really there was another way to do that. There was a way to let the infections happen and instead of work on the immune system so that you eliminate mortality or complications from those infections rather than reduce the exposure.

Ty: Right. When I was a kid–I'm 48–so back when I was a kid we had chickenpox parties, where if a kid got chickenpox all the parents would take the kids to get exposed because they'd get chickenpox and they'd be itchy for a few days and then they'd had it and never get it again, wouldn't have to worry about shingles or anything like that. But now it seems like we don't place any importance on the value of being exposed and letting the immune system defend us from that because that creates a lifetime immunity doesn't it?

Dr. Obukhanych: Well, in addition to lifetime immunity it also creates other benefits. We now have research where exposure to chickenpox, history of chickenpox is associated with reduced risk of brain cancers glioma, the same goes for mumps and ovarian cancers and also any type of childhood disease and reduced risk of blood cancers.

Ty: Now, is that the same though, let's say that we got the chickenpox vaccine, is that the same as being exposed to chickenpox naturally?

Dr. Obukhanych: So, there are reasons why it might not be the same. They've tested antibody or immune response that is generated by natural infection, natural chickenpox infection versus chickenpox vaccine and they can really distinguish between the two.

So, the vaccine response has a limited range of antibodies that are produced and right now it is not really clear what exactly protects or reduces the risk of glioma from the chickenpox infection. Could it be some type of antibody? Because the vaccination versus natural infections are not equivalent we cannot say, we cannot be confident that vaccination is actually going to be protective.

With mumps, however it is clear that it will not be protective because the way protection works after mumps infection, and I mean protection against ovarian cancer, is that when mumps infection happens and you have swollen glands, there is a protein that's expressed on those glands which is new it has never been expressed before and so the immune system recognizes this protein as foreign and starts immune response against it.

After infection goes away and this protein is no longer present but antibodies still remain and then ovarian cancer expresses exactly the same protein so the immune system is

already prime to recognize it.

Ty: But that's on a natural response, that's not from the vaccine, from the MMR.

Dr. Obukhanych: Yes, because a vaccine doesn't induce foreign glands.

Ty: The vaccines apparently are not going to produce lifetime immunity because you have to have boosters. They're not going to provide protection against these different types of cancers as you just said but it's possible that the vaccines could at least be produced in a less toxic fashion. Iff we measured for endotoxins like some of the ingredients that are in vaccines that are toxic couldn't we replace them with less toxic ingredients and still get the effect?

Dr. Obukhanych: I will say first of all we have to monitor contamination. I said that one problem is contamination with endotoxins that comes from bacterial vaccines or toxoid vaccines such as DTaP but another problem is DNA contamination. That one comes from vaccines that are grown in a human tissue or human cells and so the two that fall into that category are rubella vaccine and chickenpox.

The thing is that we don't have single vaccines. MMR is one vaccine and it has measles virus and also DNA contamination from rubella portion of the other component. So DNA is actually an adjuvant in itself and it induces a type of immune response which you call to Th2 which does not the elicit T-killer cells. And why is that important? T-killer cells are the cells that eliminate virally infected cells.

MMR is a live vaccine so there will be some viral replication and some infection of cells from the vaccine. If you mix DNA into the vaccine the response that will be elicited will not be the proper one. It will be the one that is mismatched to deal with a live virus and that can create a problem that the virus will not be eliminated. So vaccine virus can stay in the body for much longer than what it intended to be.

Ty: That's with the MMR vaccine?

Dr. Obukhanych: That's with the MMR vaccine. That problem wouldn't be in a single measles vaccine because there is no DNA from humans in the single measles vaccine that is grown in eggs and but when they put so many vaccines together they carry over this contamination.

Ty: I see. So, one way to make them less toxic would be to spread them out and make them separate?

Dr. Obukhanych: And make them separate and monitor contamination.

Ty: Why do you think that's not happening? It's more convenient to combine them into one?

Dr. Obukhanych: I think it's more convenient and also, for example, some people or some parents might decide that it's really worth for them to do the measles vaccine and not so much the rubella vaccine. But if you have everything in three then you're pretty much forced to do the rubella as well.

Ty: Yeah, because I don't know the last time I heard about rubella here in this country, being an outbreak of rubella.

Dr. Obukhanych: Usually rubella is dangerous when it happens during pregnancy. So, it's important in

the past that women would get the immune from rubella by going through rubella during their childhood so that by the time they are mothers, they don't have to deal with rubella infections. They wouldn't have any risk for it.

So, in a way rubella parties would be great to get everyone immune to this really mild disease. But, again, instead of doing that, instead of doing this self-empowering kind of method of getting over with rubella instead it was decided to eliminate it and for that you need to vaccinate both females and males. Males have absolutely no benefit from rubella vaccination for themselves since there are really no risks from that.

Ty: The male's rubella vaccine is useless?

Dr. Obukhanych: Well, it's not beneficial because the only time when rubella is dangerous, as I said, is during pregnancy.

Ty: Other than that, it's just a rash?

Dr. Obukhanych: Yes.

Ty: So, it doesn't make any sense at all to have the boys have an MMR vaccine. They should just have maybe the MM with no rubella?

Dr. Obukhanych: Probably, yes.

Ty: Well, it seems ludicrous to me that we have boys taking the Gardasil vaccine, boys taking the MMR vaccine when rubella doesn't pose a risk. But we see that though, we see that today that sometimes—I think one of the questions maybe we should ask is, is the vaccine necessary? Not just is it safe and effective but is it necessary? Could you elaborate on that? Are the vaccines necessary? Are there certain vaccines that are necessary? What's your take on that?

Dr. Obukhanych: Once you start analyzing one vaccine after another you will see that they're either not necessary or they don't guarantee always to be protective or they are very harmful. So, there is not a single vaccine that I could find, I put my finger on and say that it's necessary, safe and effective. There is none.

Ty: There's none?

Dr. Obukhanych: There is none.

Ty: Wow. Well, I'm glad to get your take on vaccines because as an immunologist you have a different perspective and very valuable perspective, I will add to that, on these vaccines because you understand the importance really of our own innate immunity as opposed to trying to inject immunity through a needle. Because it really, and I don't want to put words in your mouth, it really is not the same thing to get the immunity naturally versus through a needle.

Dr. Obukhanych: Yes, and I actually experienced that on myself because I had two measles vaccines and I still got measles later on. So, for me it was a bit shocking. I thought that after vaccines, as the theory says, that we get lifelong immunity. It wasn't the case for me and it's not the case for many other people who may not even realize that.

Ty: So, you got the vaccine twice and you still got the measles?

Dr. Obukhanych: Yes.

Ty: Okay, I got the MMR, I don't know if it was MMR, but I do remember that I got vaccinated for measles and mumps and I got both of those as a kid even after the vaccine. So didn't work for me either, apparently. I never got chickenpox vaccine, I don't know if they even had it back when I was a kid.

Dr. Obukhanych: No, they didn't.

Ty: But I did get chickenpox. So, I guess I don't have to worry as much about shingles.

Dr. Obukhanych: No, actually you do because in order to prevent shingles you need constant re-exposure from chickenpox which is no longer the case so you have to worry about shingles.

Ty: Okay, because I thought that if you had chickenpox naturally that you would not have to worry about shingles but that's not true.

Dr. Obukhanych: Not true. So, if you keep getting re-exposed to chickenpox the shingles will stay down.

Ty: I see. So maybe what we're seeing with this increase in shingles is the fact that we're not doing the chickenpox parties anymore? So, people aren't exposed to the natural virus and their immune system is not working constantly like it need to.

Dr. Obukhanych: Exactly.

Ty: Okay, interesting.

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