Introduction to Nick Pino and EMF work

Hello. Welcome back to the summit. I am Doctor Jamie Kunkel and I am joined today by Nick Pino. And he is a specialist on, emfs Electromagnetic Forces.

We're going to talk about what that actually means in a few minutes. Some of you have heard of that. Maybe some of you, haven't or don't know much about it.

So we're going to we're going to talk about that in the context of mold and mycotoxins too, which is really fascinating. So I can't wait to dive in. But first, I want to give a little introduction to Nick here.

I appreciate him taking his time to speak with us today, and I think he joined us on the last summit as well. So Nick is, also known as the EMS guy. I believe that's also, his website, which I'll tell you about in a minute.

But, he he's a number one bestselling author of the, non tin foil guide to Emfs, which I actually have right here. Funny enough. And, he's an advocate for safe technologies through his unconventional approach, blending humor, science, and common sense, he's become a leading voice on the topic of electromagnetic pollution and how it affects our health.

For the past few years, Nick has been interviewing some of the best minds on health and technology and facilitating the creation of courses in educational materials to raise awareness on this very important issue.

You can find more about Nick at the EMF guy.com. That's msci.com. Cool. I'm excited. So let's, before we jump in, any anything else? I should we should tell our viewers about introduction.

Anything else that you want to you want to tell anybody about what you do or what you're up to these days? Oh my God. Well, the well, these days specifically, I'm doing, summits, such as these, but I've created my own, the IMF Hazard Summit, where I interviewed the Robert F Kennedy Jr and attorneys, the IMF mitigation specialist, IMF scientists, and wanted to bring this to the public, during a free event.

So it's, it's running in March, but that's a project I think I'm going to do every year because I saw such a good response. You know, from these summits, people can they can choose a few interviews that they like.

And, the topic of EMF has been, I think underappreciated, among all the summits that are available, you know, so I'm trying to do my best to bring awareness now.

Yeah. Really appreciate that. So yeah, let's just dive right in and I guess you're. So what? What are emfs exactly? Can you give it a little bit of an explanation to that? Sure.

So EMF stands for electromagnetic fields, electromagnetic forces, and there's many different versions of that. I like talking in terms of electro pollution in the scope of my work, because people really get it.

And I'm talking about the cell phones, Wi-Fi, Bluetooth, cell towers, smart meters, and also household electricity as a whole and basically how these fields impact us.

And these are brand new fields. That's why we're referring to them as electro pollution. Really. There are brand new fields that our biology has not involved with.

Whereas you have, other emfs like visible light or invisible light spectrum also emitted by the sun, for example, that is very biocompatible. That is very compatible with all of biology because we basically depend on the sun for a day night cycles, for the melatonin production, for the vitamin D production when the sun hits your skin.

So we know that these signals are, are safe. We also know that if you get in the sun for eight hours in the middle of

the summer, maybe you'll burn. So there is also such thing as the right dose of natural emfs.

But for sure, these amps are recognized by our body and they know what to do with them. However, the new EMF, the electro pollution that I have been studying for the past 5 or 6 years now, they're brand new.

What EMFs are and why they matter

You know, electricity wasn't, the electrification of America was, ended in the 1950s. So it's been completed in 1950. So even the use of electricity is very recent.

It's just we're just four generations, maybe six generations for, down the road for people who were in the early cities getting electricity or the telegram at first.

So it's very, very new that we are surrounded by electricity. And, you know, the understanding even at that time, in the 1850s was that very, very low exposure of electricity could lead to harm and, to all sorts of, of symptoms.

And unfortunately, I think that, societal excitation about using electricity, which completely changed modern civilization and also the telecommunication aspect when we first launch a cell phones, and now they're so part of life that most people couldn't even live without one, or they're trying to, to add, owning a smartphone or telecommunications as part of, almost the, the Maslow pyramid nowadays.

It's almost to that point where, okay, being able to communicate with whomever you want to and stay connected with people and have access to that telecommunication, even if you're in the middle of nowhere, is almost becoming a fundamental human right.

And I'm okay with that part. However, the reality is that what we've rolled out as far as telecommunication goes has consequences on our biology. And we're still in that, in that, bizarre spot where the science is increasingly clear on the dangers.

But the denial is also increasing at the same time, because for a lot of reasons and you said before the interview, a lot of people are glued to their phones and they kind of don't want to hear about it.

So it's kind of a unpopular topic because even people who care deeply about their health, well, they do own a cell phone. They do use Wi-Fi. They do have these Bluetooth devices.

And thinking about the fact that maybe these are exposing them to unnecessary risks or overall added stressors is very uncomfortable. But the good news is you can minimize your exposure without necessarily, going back to the Stone age or anything like that.

I do own a phone. I do own computer. I have computer screen, the laptop over there. I have many things that are I'm still part of modern society and technology is my everyday life as an educator.

That's what I use. I'm always on the internet, right? So it does not mean to, eliminating emfs or reduction, reduction of emfs does not mean a reduction of how connected you can be.

These things are separate. You can go through wired technologies and other alternatives, and we'll talk about that a little bit later in, in this interview.

Oh yeah. So when you say newer EMF technology, are you referring to everything from, you know, the electrification of America to now, or are some of those things, you know, maybe others.

This includes it. Just the fact that we use electricity can, can have detrimental effects. So, for example, the average person, in America has about three volts running through their body at night, and most people don't realize what it means.

So you have, let's say a nine volt battery, those little square ones that are rectangle ones that are used for medical devices and such. When you have three volts running to your body, you don't feel anything.

Most people wouldn't feel it, but it's a low level electric shock. And what we find among building biology is that go to people's homes and reduce that amount of electricity coursing through people's body at night, that the the ability to sleep more soundly, more naturally goes way up when you reduce that amount of electricity.

So that's electricity alone. Then you add electricity in the air and that's called the wireless, right? That's electricity being conducted in the air between the tower and my phone or my phone and the router, the router and my computer.

So all these signals are bouncing around and they're also impacting sleep and many aspects of biology. But mainly I think that the main, area of damage is really happening when you cannot get the restorative sleep that you need.

And this is one of the many factors, including light pollution that impacts sleep negatively, but it's one that, people tend to forget or ignore, depending on where you stand on the issue.

But the reality is, when you look at statistics, most people keep a phone in their pocket during the day, and then most people fall asleep with a phone under the pillow on them or on the nightstand.

So it's very, very close to their head. And most people don't understand these dangers. Or put the phone on the airplane mode or turn it off so they are exposed to unnecessary signals.

During the night. So it's hard to tell which is worse, the wireless, the electricity, or there's other types of signals that that are studied in the building biology profession or by doctors who understand these, these, electro pollution risks.

But I think we can consider that they're all environmental toxins and that when each type we, we try to minimize them, then good things happen in the sense that it will alleviate some of that weight that you have on your shoulders that prevent you from, either, feeling like a superhuman if you're already very healthy or just getting back to normal health if you're chronically ill.

And that's oftentimes in doctors who study environmental medicine and you wonder stadiums such as a Doctor Dietrich, Clean Heart or Doctor Schaffner, many doctors I've been I've had the privilege to interview in the last years.

All of them have told me that with chronically ill patients and people who have become pretty much sensitive to anything, whether it's, they have many food intolerances, they have many chemical sensitivities.

They have mold toxicity at the same time, and they have the perfect profile for electro sensitivity as well, where they cannot handle much exposure before they start becoming symptomatic, before they get insomniac.

And this is really where like what is worse is it the mold is the DMs. Well, it's probably both. And if you eliminate Emfs and then eliminate mold, then you give yourself even more a better chance of recovery.

If you eliminate the mold, keep the emfs near your head at night, you might recover, or sometimes you might not. And in certain patients, EMF is the missing factor where it will bring you back to an environment that is that that has a better chance, basically, of making you recover.

And, the thing about EMF removal or reduction, if you're trying to have that, this room, let's say this room, I mean, I'm in Montreal and it's, it's very electro polluted.

All the big cities are. So if I shield that room and create, let's say a Faraday cage, a completely enclosed environment. Where does the EMF, signals in the microwave, radiation range would be zero.

I'm not creating something new. It's not something fancy or futuristic. I'm just going back to the normal levels of emfs that are ancestral. So a lot of people talk about the paleo movement.

You know, a few years ago, it was really, trendy. And it's still are, it's still is. But the reality is that our signal diets, our signal exposure is really far from being paleo, but most people don't realize is still a bit more abstract or hard to grasp than food, which is something that we really see.

We taste, we we experience the effect, the invisible signal. It's a little bit more, there you be ubiquitous and it's really, a little bit harder to see the effect.

But the reality is, maybe if people listening to this have already, I've already done a no EMF experience and even a no old experience. Right? When you, you're in a moldy home, you go in nature.

That's something in an environment or a medicine that is often, oftentimes, recommended to patients. Get out of your sick environment, of your toxic environment and see if it changes how you feel.

If you feel way better outside the home than inside, then you know you have one of multiple things. Maybe you have too many chemicals in the air and so bad air quality it might be mold also.

It might also be EMF because if you go in nature, let's say in a zone where there's barely any cell phone signal and you don't touch your phone, you try to really disconnect for seven days.

A lot of people see their their illness really changing. A lot of people sleep more soundly. Maybe you feel calmer. Some people even get, you know, symptoms of tinnitus or ringing in the ear, all, all of a sudden vanish after a few days.

So something really profound can happen if you get out of your sick environment. So this is how you test it for yourself. Because electro sensitivity, may be present, but be masked by the fact that you're always in it.

You're always in EMF. So for you, this is your normal baseline. You don't realize all the potential. You would you would you have just, and that that's almost that's easy to unlock if you clean up your environment.

But you can realize that if you get out of that environment for a while. So I guess going camping is it is a very good idea after all. Yeah, yeah. So it's kind of all about toxic burden overall. You know, whether it be yes, yes, mold and then how many different sources of EMF.

So and you mentioned sleep disturbances and to notice are those are some of the most common, you know, manifestations, statistically of EMF exposures for people or.

Yeah, in one, what do we think about usually? Yeah, there's a few researcher well, several researchers have looked at the question of electro hypersensitivity.

And there's many symptoms that vary depending on the degree of sensitivity. Doctor Magda have is from, Trent University in Canada. She says it's about a third of the adult population that has mild to moderate symptoms of electrical hypersensitivity.

About 1 to 3% might be, might have debilitating illness as a result. And if if these statistics are even, half true or a 10th through, it's it means it's millions of people across the world that feel sick in a city or feel sick when they're on a subway train exposed to cell phones, for example.

But if you're in the mild to moderate zone, what does that look like? Well, a lot of people have unnecessary fatigue, excess. Excess fatigue. When you wake up, you can never recover.

So poor sleep quality is number one. There's also depression and anxiety and brain fog or memory loss. And right there you have all the, you have all the, the Alzheimer's dementia that that is at the moment still exponentially

rising.

So is it old age or is it the combination of all these toxins were exposed to that? Yes. It's part of aging. Maybe your memory isn't where, where it should be at, but are you really you know, maybe you should still be here and you're in the floor because of all that toxic burden.

So in reality, when I look at, certain people who, my, my grandma, I remember she, she, she passed away, very recently, but I remember her as someone who always remembered everyone and and what they did in the family.

And we're, we're a very large family in the piano family. So she has eight children, and they have, I don't know how many cousins I have, like 30 something.

I don't know, like, it's it's really a tremendous amount of, people to remember. And she remembered every one of them. So she was super sharp even. And she passed away in Virginia at 97, almost 98.

And this is you have examples in your family, probably where people in their very old age, don't have this dementia symptoms just have incredible memories.

So it's feasible. The the thing is, we're among the generation of my child Elliot, who's four now. He's the first first generation to be exposed to these signals, 24 seven, starting at birth.

Even ten years ago, the levels of electric pollution in cities were not where they're at in 2022 or beyond, even. And then if you go back to 2000, you didn't have Wi-Fi in cities, you didn't have people with cell phones, or you had a few ones with bricks.

And my dad was one of them. He's, he was a realtor. So he had that big brick connected to his his car with the antenna, the Nokia 9000 or something. So. Exactly.

And that's why we think about it. It's almost. Oh, yeah, the good old times. But it's like 20 years ago. 30 years ago. Right.

Health effects, sleep disruption, and electrohypersensitivity

So, so the first cell phones, basically no one use a cell phone in the 2000s or a few business people. But the reality is that things have completely exploded and that our ability to study the harms of such an increase is vastly surpassed by our ability to develop new, exciting technologies.

So the technology comes and then we backtrack, through epidemiology and we say, we'll study these populations that are dead from something and figure out, oops, is it from their cell phone kind of thing?

So yeah, unfortunately we're very behind. And and this is why when it comes to emfs, it's really the scientists are sounding the alarm and saying that at least we should follow the precautionary principle and stop putting new technologies in place that expose us to more radiation, like 5G, for example.

Even the most powerful routers nowadays have three, four antennas. They're they're stronger than ever. And one of the reason that I've been told by an electronic, engineer who's an expert in EMF, he told me, well, everyone is kind of, we're still within the safety limits, and they're very, very high, those safety limits.

So basically, it's almost anything goes at the moment as far as wireless radiation goes in the Canada and the US, especially because in other countries you have, limits, orders of magnitude lower than in North America.

So we're really, really permissive when it comes to exposure. Not only that, but if your router is stronger and your phone becomes stronger as well, more emfs.

Well, now the neighbor has a harder time connecting to S router and this phone in the long run, because of the

interactions between devices. So there's more and more noise in the environment.

So it means that technological development is going exactly in the wrong direction, where everyone is increasing the levels of noise. So it's kind of with, with, with time, we're going to have to increase the level of power of these devices so they can sift through noise and connect to the tower.

Right. So it's this invisible noise that we don't realize and there are consequences. There's a recent study that showed that just the rollout of that 5G network, a lot of people have been talking about it, a lot of hyperbole on the internet about the effects and whatnot.

But what I can tell you is this 5G is more bad news, and it's more electro pollution. And we have the scientific information that came out, few months ago that showed that in cities where 5G is rolled out, the levels are going up and up and up, and that's not surprising.

That was to be expected because of the number of towers, the power, emitted by these towers, and then the power of the phones that have so many tiny antennas in them for 5G.

So five people that use a 5G phone, they're happy about it, don't get me wrong. It's just that they don't know what the downside is. They don't know that there are links between, phone use and brain cancer, for example.

Or they don't know that if you keep a phone in your pocket, you are that much likely to have, poorer, sperm quality and sperm count than men and probably lower fertility in women as well.

So there are consequences to all that connectivity. And at the moment, it's just increasingly more difficult to lower the exposure because all the new exciting machines are are more and more toxic in reality.

Yeah. You mentioned, safety levels that were how did they determine these, you know, proposed safety levels as far as like how far we can push this if there haven't really been long term, you know, large population studies.

Yeah. This is really, really old science from the 80s that basically looked, looked at rats and, they determined, safety threshold based on heating. So when the rats were over heating, then they saw damage of all sorts, and, they lost appetite and they became lethargic.

And it's really. And then they, they looked at that limit and probably had a safety factor of ten. But even then it is based on the fact that you should not overheat from your phone.

And for sure, heating can create damage, especially if it's, you know, a microwave, will heat your food from the inside out. And this is how the microwaves work.

And that's a microwave oven. A microwave oven is over sometimes 1000W or more in power. A phone might be one, two watts and power. So that's that's definitely not cooking in the egg.

That's a myth. And that's not cooking your brain. But it's not the question. Even at very low level, the science is very clear. There are thousands of studies that show that even at levels that do not heat this, you do not overheat your brain.

You have oxidative stress. You have it a reduction of your ability to create energy so that mitochondrial function goes down. And you also have a loss of antioxidants.

So in the long run you have glutathione on levels that go down catalase sod superoxide dismutase. So it's the same thing I think from what I know from mole toxicity, these two agents emfs as an invisible toxin and mold as, well, otherwise invisible toxin as well, because most people would not really see signs of mold.

Or maybe they miss it because it's hidden by a wall or whatnot, or it's just a type of mold that is very hard to detect. Both of these act the same way, and the problem is mostly in the long run.

A lot of people can feel immediate effect if you're sensitive enough, but for most people with exposure over time that maybe you've been living in a home near a cell tower, or maybe you have just started using your phone to the had more for your new job, and you're talking a few hours per day, and maybe you're fine on your number one and you're number two.

You start getting fatigued and eventually it is too much. So it's it's really the cumulative effect, the overall cumulative effect, just like mold where over time if your your antioxidant level will get so down, so depressed that now you're unable to cope with the oxidative damage, then everything can kind of crumble and fall apart.

And what makes it difficult to heal in a very high and, EMF environment, it's like, trying to heal or to sleep soundly in a high light environment, because in the end, there are many mechanisms, that are similar between the microwaves and the visible light.

Like, for example, we know that excessive blue light, in the evening with the wrong timing can, lead to loss of sleep quality. It can keep you up. Right. So you.

Exactly. It stimulates your brain. It will lower your ability to release melatonin at night. But there are researchers that say, well, the microwaves do the same thing.

The pineal gland is not able to release that melatonin. So it looks like our bodies are able to detect very wide, frequency, a wide range of frequencies that are both visible and invisible.

And the proof is there. We can also react to, the far infrared or the UV spectrum. And we do react to obviously the x rays and nuclear radiation. And we do also react to other invisible waves, such as the very, very, very low frequency waves being emitted by, the Earth.

And if we're disconnected from the natural Earth magnetism, there are consequences to human health and the NASA studies and Russian scientists, Russian astronauts have also studied that and realized that when you're in space far from the Earth, you're missing something.

You're missing the light. You're missing the the Earth's natural magnetism and many aspects that, make our biology work the way it should. If you get outside that planet, you don't get the electro smog, thank God.

But you get other things, you get space radiation, and also the lack of natural frequencies in the human body. So all of this has not been taken into account when developing safety limits or anything like that.

So, sure. That's that's why the safety limits are fundamentally wrong, is that they're based on the assumption that, oh, no, only the heating part alone matters.

But the non heating effects are not only known there, there are shown in most studies is the vast majority of the studies that do show oxidative stress for example.

So if you have oxidative stress we do need some amount of oxidative stress. But on the 24 seven oxidative stress from exposures that are otherwise, avoidable, well, it's probably not something that serves us.

And that's really the message is reduction minimizing that risk. Yeah. So you already started talking a little bit about emfs and mold and how they're interrelated. In the biology too.

It's really fascinating. I would imagine that these emfs affect other, you know, biologic, beings, you know, bacteria, maybe viruses or other things like this.

Definitely. And some people will definitely, I've heard I've heard rumblings out there of, like, you know, EMF might, you know, supercharge mold or make it more active or something like that.

I don't know if that's entirely true. I do know that molds and fungus, you know, definitely don't mind being around

radio radiation spaces. You know, like, yeah, they seem to thrive in those particular regions and everything too.

But yeah. Well, I'd like to, you know, do you have any information on sort of some of the, possible, like, you know, biome effects of, of the radiation to in our body, you know, in our own cells and maybe even other beings and why mold might be maybe not as affected by that too, I do.

Yeah. Well, the, the, the one study that has been especially quoted is a, is a study that was never published. So that's unfortunate. An unfortunate I did talk with Doctor Carlingford who's the the Doctor Who kind of put that online several years ago.

And it's been going around in circles. So in, in that unpublished study from his colleague from Switzerland, and he told me I had the email communications to clarify, okay, who was that person?

Unfortunately, that researcher passed away, before he was able to publish. According to his experiments, he was a researcher in mold, and he showed that certain strains of mold under the influence of WiFi could produce more bio toxins.

More my Michael toxins. This is not necessarily surprising in nature. What you find when you study, certain strains of Candida. So, so, fungi or you study certain bacteria in particular.

One year they exposed to Wi-Fi or cell phones. There are, study groups that have looked at the effects. Sometimes it might make, the bacteria, weaker.

Sometimes it might make them stronger or reproduce faster or suppress their ability to reproduce. And it it varies a lot. So there's no cookie cutter answer on this.

What we know is that there are real concerns about what the emfs from our everyday devices are doing to, for example, antibiotic resistance in, in E coli in particular.

And that's the tihe regroup t a h e r I from Israel, if I recall correctly, they published in 2015 and beyond a few studies showing that, certain strains of E coli that are commonly found in hospital and can lead to deadly infections in the hospital.

And we know antibiotic resistance is a modern problem that we've created with, let's say, the abuse of antibiotics and just, maybe Wi-Fi is contributing to it without without us realizing that in the hospitals they're installing these Wi-Fi machines everywhere, the routers, but also also the Bluetooth monitors, cardiac monitors.

My wife, when she gave birth, had that baby monitor, I guess, which is tracking the metrics of the fetus, which I'm not necessarily against.

EMFs, mold, and shared biological mechanisms

And some people will come back to me about that one, but I'm not necessarily against if it's extremely short exposure. It was a few hours. So we have to put things into perspective.

However, the personnel exposed to it is for hours every day, and also if it exacerbates antibiotic resistance, which it looks like it can, then probably we should not have that in the hospitals considering antibiotic resistance.

It's such it's such a big problem in the first place. So will it make mold more aggressive? Overall? We don't have the definite proof, but it is plausible that it might make certain agents react.

Or certain pathogens react in a way that we don't know. Will it make parasites more, stronger in the human body? We don't know. There are some studies on the microbiota that shows that certain strains of beneficial bacteria are, are have a hard time reproducing when under the exposed, the exposure of, cell phones or Wi-Fi signals or, or things like that.

But there's not a lot of studies really on the effect on the microbiome. I did talk to a very prestigious scientist, Marco Ruggiero, PhD, who, who is, an Italian researcher with over 100, peer reviewed, papers, and he's an expert on the microbiome and also on the EMF effect.

And very recently, I had a conversation with him where he shared, according to him, he considers that most of the effects are caused, by cell phones and Wi-Fi and electro pollution and are not caused because of direct cellular damage.

But according to him, it's really the damage to the microbiome. So there are different opinions. Some researchers would not agree with that assessment, but the reality is it's a big black box and that's a problem.

Like I said in my book and like I've been saying, I I'll still say it. It's it's not what we know about EMS that concerns me the most. It's what we don't.

And that's really the problem. That plus the combined fact that it's so hard to study because of a lack of funding, because scientists are being defunded and there's a lot of industry pressure not to study the topic.

So it's always it's also a very charged topic, controversial. And and not a lot of scientists want to get in. That line of research is pretty much career suicide when you study MPs.

It's very unpopular, let's put it that way. So it we don't know exactly what is doing. What we do know is that it's a stressor. What we do know is it's extremely likely that there's a big synergistic effect between emfs and mold and also heavy metals and other toxins and that if you study researchers like Doctor Martin Paul, for example, from the university, of Washington, pursue, he says that these things act in synergy.

There's no doubt in his mind. And he's an expert on multiple chemical sensitivity. And he started studying emfs, later saying, oh my God, it's actually the same mechanisms that can explain why people react, in such, an almost, exaggerated manner to certain chemicals where this they smell a little bit of perfume and they almost faint.

And people are doctors are in disbelief. They are in disbelief themselves. These patients, because that sensitivity is so high that they have a hard time living in society.

Well, the same thing applies to EMS. And the same things are seen in these people who have developed multiple sensitivities that are environmental in their nature and that are they are reacting to everything.

It's just that oftentimes they forget that they can also react to a phone, for example. Sure. So you mentioned, before too, about some of the mechanisms of how emfs and mode both disrupt the physiology.

I believe you mentioned, you know, mitochondrial, you know, stress as one possible mechanism. And I know I've heard some things before about, you know, oxygenation also in general or coagulate clog ability or, you know, thickening of the blood, like, mold can do that sometimes.

And, you know, I've heard EMF sometimes mess with with that mechanism as well. Could you speak to any of the other sort of. Yeah. What you mentioned the synergistic, you know, the negative synergy, so to speak, of emfs and molds, and how we can think about it as doctors to mechanistically.

Yeah, sure. Well, it's a especially I think Doctor Martin Paul is really the best researcher to study. And I think it all comes down to the nitrogen species peroxide, nitrite, and the production nitrite.

Now there's, there's a paper in 2007 that, Doctor Joseph Mercola really pointed me towards from Paul Patch or Paul pa KBR Paul Patch or and it's a very it's over 100 pages.

I think that paper it's a landmark paper on oxygen nitrite and disease. So it talks about all the mechanisms. And if we really believe that this is correct, that pure oxygen nitrite can be at the root of all diseases, and there's many reasons why it could be considered one of the most dangerous, nitrogen or oxygen species out there, one of them

being it's so small that it can travel and damage the mitochondria directly.

It can hop from one cell to another, and it can get into the cell nucleus. So that's why and to be honest, the biology is really elusive to me. It's way above my pay grade.

But what I understand is that this is this is plausible. This is fairly new science also. So will it, will it be recognized that emfs really exacerbate the nitrite problem?

If you believe, Doctor Paul, this is what's happening. So he talks about the voltage gated calcium channels, two types of voltage gated calcium channels in particular, especially the Altai that he mentions in his, in his research.

And he says that when the emfs and he did he did talk about all types of emfs, including household electricity, including, magnetic fields and magnetic components of that EMF or wireless.

So he says there's no difference in the biological effects. So this is really why the message from the scientific community is to minimize all these sources equally, because we don't we cannot really quantify that.

The cellphone is worse than the WiFi. It's really they're all in the same. They're all toxic and in a sense, especially, in great quantity of exposure and over time.

So all of them contribute to excessive levels of of pure oxygen nitrite in the cell. And basically you have the cell left to try to mop up that damage.

And, it requires a lot of, cellular energy. It can deplete levels of, of nad so leading to mitochondrial, dysfunction or reduction of activity over time.

And then it can also deplete antioxidants. So this is really why the actin synergy it looks like it basically at a basic fundamental level creates the same damage and in the body.

And it's also interesting to know that, these emfs are, there's a lot of researchers that say they're more of a coal carcinogen than a carcinogen. You have several studies where emfs alone have no effect on rats or mice or maybe, in vitro.

And then you add an agent, you add maybe, a little bit of lead exposure that could be nontoxic. You could have emfs not toxic, lead nontoxic. And together, they're now they become a carcinogen to these rats or mice, for example.

So or you see the damage in vitro or whatever. This is so there's a driver's license key and other researchers that have said, it's it's very, very likely that it's a Co carcinogen and you have studies, synergistic effects of emfs and doctor cost stuff is one of them.

Rolo roll cost off. And he's almost I think that that paper is almost funny to me because he, he does talk about how many experiments would it require for us to look at the synergies between Emfs and a few known environmental toxins that are commonly found in, in the air and water on our food, like, could be arsenic, could be lead, cadmium, could be, I don't know, like the major pesticides out there and fungicides and rodenticides, herbicides.

There's so many of them. Right. So he talks about the millions of experiments that will require for us to look at just a few agents that act in synergy.

So EMF plus arsenic plus lead or EMF plus arsenic or EMF plus lead and is basically what he says is, well, even with, the kind of attention we gave to the Manhattan Project, it would take decades.

So the only logical thing to do is to try to minimize exposure, start bringing down the levels of exposure with new technologies instead of doing the opposite, which is what we're doing right now.

So the that this is really where kind of, we're, we're stuck facing a wall here as far as science goes, the more we study emfs, the more damage becomes apparent.

And at the same time, there's a big opposition, and a big industry that wants to keep things just going and going. And then you have users in the middle that are that say, I love my phone, but I've heard about this EMF thing and I hate it.

So what do I do? Right. And this is really where individuals can choose to minimize exposure. While unfortunately, I think there's still a few decades to go of scientific battles and policy before we can make the phones, tremendously more safe, in my opinion.

And many scientists say, kind of make the analogy with seatbelts. At first, they were almost ridiculed, from what I can hear from the, the what I read from history, it's like, oh, okay, we don't really need car safety.

But afterwards you realize really with the studies that, yeah, cars are kind of responsible for all these people dying. And we can have airbags and seatbelts and many other features.

And now cars are millions of times safer than they used to be. Same machine. And we don't stop using cars, right. So we still use them, but they're way safer.

So can we do that with cell phones and make them way safer? We probably can, but they will require the, the expectation that we will all have to accept that there's a problem in the first place, or else things are not going to move.

So for the moment, it's more of a, I'd say it's a grassroots movement of people that say, hey, I want safer technologies. And a lot of scientists that are I've been to I've been partially successful in and sounding the alarm to the UN and regulatory bodies and governments.

But, they're, I would say mostly ignored. And there's a lot of scientists that are poor, putting their career on the line, trying to make things change.

But it's a slow process at the moment. Sure, sure. Well, in, our remaining time here, this has probably been discussed before, too. But what are some practical, like, first step things that, you know, an individual can do to try to start mitigation in their own life?

You know, knowing that there's some things we can control and some things we can't right away. So the broader society at large, you know, as it stands.

But I mean, do I have to like go move to the country or like, you know, what are some basic things, to start off some palpable things, some things we can, you know, start implementing today.

Sure. Well, it really depends on your degree of sensitivity. I think the first thing you should, you should mitigate is your bedroom. And this is my bedroom slash office.

So if I have anything more or less in this room, it should be turned off or set on airplane mode at night. And that includes your cell phone. Also, Bluetooth alarm clock, a cordless phone.

Some people have a laptop open. Maybe they download movies during the night or I don't know what. Or they just keep it open. They don't think twice about it.

They don't realize that it's still connected to Wi-Fi. It will ping every few seconds. So these are all sources that are close to your body. And at night.

This is where most of the problematic effects of the damage can happen. By preventing you from having the deepest sleep you can have. So this is really where you want to do most of the mitigation.

The number two place would be where do you spend your time during the day? A lot of people are on the move. Would a phone in their bra in their yoga pants, in their pocket?

In their shirt pocket? Also, and many carry out two different cardiologists I've heard from have told me that some patients get, heart, arrhythmias or other heart problems that can be directly linked to the presence of a phone in their shirt pocket.

So they have a sensitivity or I mean, is it a is it a blessing or is it a curse? You choose, should you realize, should your body give you a signal? If you have a phone near or near a heart probably should.

So the people who have no signal are probably in more trouble, in a sense, than those who do. But anyway, you should not keep it right next to your body.

It's in fact it's written in the phone. If you look under the RF regulations that this thing could should be, depending on the phone, a few millimeters to a few centimeters away from your body.

And I don't know how they expect us to do that because it's glued to us most of the time. Right. So no one follows these instructions and usually no one or I, I'd say not even 1% of cellphone users even know that it's in there.

And that's you should create a distance. So it's very important also to turn off that device, put it on the airplane mode, or try to have other things.

There are certain, cases from companies like Shield Your Body or their there's Defender Shield, there's several good companies that do cases. But even then it's let's say it's a half solution, which you should not initially live with, the idea that it makes your phone safe.

For example, I would not put it to the head. I would create distance between the phone in your head if you talk on it all day, especially if it's part of your work and you're always two three hours talking on the phone per day on a cell phone, you should create distance.

Practical EMF mitigation at home and work

You should use wired earbuds such as these and, hold it in your hand, put it in front of you. So not in your pocket. Right. Or if you're driving and you have something like this, if they're legal, just follow the regulations in your country.

But just put it in the the other seat, like, not between your legs. And I see a lot of men put it between your a lot of women as well. Put it between their legs and that's a bad idea if it causes cancer of the head here and the data is pretty, pretty clear on that.

What do you think it does? If it's in the groin area? It's probably not. Not not better. So you choose where you want damage. Ideally, you want no damage to your body.

So that's creating distance. And then look at other areas where you're spending a lot of time with machines that are plugged with wireless. And the biggest mitigation you can do to reduce your exposure at work would be to have a computer that is wired, and that's not always feasible.

I understand that, there are other things you could do to bring the Wi-Fi antenna, very far from your computer, using, for example, a USB extension. And at the end of the USB extension, you can put a, USB Wi-Fi adapter.

So that adapter would act as Wi-Fi and would be very far away from your computer, and your computer would have the Wi-Fi function turned off. And that's a little bit of a trick that I have on my YouTube channel, where I share how I travel with my laptop and still use Wi-Fi, but I use Wi-Fi, and it's the Wi-Fi is not immediately on my computer, which would have been a foot from my head.

I create about a ten feet distance between the Wi-Fi chip and my head in that way. So it's a little bit of a of an alternative. But at home, I see a lot of people.

At home they have this a home office environment and they still use Wi-Fi. And if your computer is in one place, why do you need Wi-Fi? It's not practical.

Well, sometimes the signal can drop off for these interviews. I know I was frustrated because my wife a router is, I don't know, 25ft that way in the corridor, the other side of the of the condo.

And, the Wi-Fi was very spotty and very, I wasn't satisfied with it. I had a hard time doing interviews, so now I had a choice. Do I get a stronger Wi-Fi?

And even more I like to pollution? Or do I run a wire? So I ran a wire from the router to my computer and the wire is called an Ethernet cable. It still exists.

Yes. You can still use that with modern computers. There's an adapter. Most computers don't even have an Ethernet port these days, but you can have a USB, C, two Ethernet or USB, 2.02 Ethernet to or other ports.

There's many options out there, so it's easy to figure out, and it's pretty much plug and play and you don't have spotty Wi-Fi anymore. So and of course, you turned off the Wi-Fi function on your computer because it replaces the Wi-Fi function.

Now it's a wired connection, and now you can just surf the internet with no radiation. And that's still feasible. So this is really when it comes to mitigation, you want to look at what will give you the most bang for buck.

And it's usually the longest exposures or the ones that are closest to your body. So start at night. Then think about devices touching your body or the devices that you use for hours on end.

And for most people it will be a tablet or, connected, a computer connected, a Wi-Fi or something you wear on your body or cell phone. So usually it's the personal devices and you really start there because these things you have control over.

Then I guess I have also to mention, I know a lot of people listening to this. A lot of them might be either sensitive themselves, know someone who is very chronically ill, or doctors who treat these kind of patients.

Some people cannot handle the agent called electro pollution for a long time. If they're in a city environment and they feel hypersensitive to everything, maybe they go to, a cafe.

And just by the time they grab the coffee and pay with credit card, the router is really it's too much for them and it can be that bad. Well, for them, maybe it's not the right environment to heal, and that's a big decision to make, but it's akin to having to move out of the moldy home while it's being remediated or just deciding, you know what?

This is too much. I have to find another place to live. And this is the reality is, for some people living near a tower or in a city right now, it's too much to bear.

So it is, I guess the the action steps for, for those people is at least knowing what the EMF environment is inside their home. And the way to do this is with an EMF inspector, the equivalent to a mold inspector, but for EMF.

So there's the building biologist, there's the EMF mitigation specialist that have other accreditations, such as, my colleague Brian Hoyer from Shielded Healing, for example.

And there's, Geo Vital consultants as well. There's good professionals out there that can go to your home and assess the EMF environment. They can also talk about mitigation strategies.

They can shield bedrooms. They can recommend different shielding solutions and help you find the sources and

whatnot. This is the first step usually that I would recommend doctors to refer to their patients.

And then if it's still too much, sometimes you need to go in lower EMF environments. It might be in the countryside, might be in the city in certain, locations where it's lower.

But then again, you'll have, to use, meters and the specialized equipment of a building biologist to be able to assess. Okay, is this new home that I'm looking to rent or purchase?

Is it safe? Is it low enough for me to handle? And the good news is there are people who recover. There are people who become, tremendously less sensitive than they used to be.

We would say I, I could, I could claim, based on what I've heard from, functional medicine doctor, especially those that, the, environmental. Sorry. To the less, I'm just losing the name here.

MHC Dallas, if I recall correctly. Stephanie. Carter. Or Mick Carter. Sorry if I'm butchering her name, but, there incredible experts as as, people who treat electro hypersensitive patients and also mold toxicity.

So they see both of them and, oftentimes they have the two at the same time. And, they say, you know, it's not all patients, but some people are able to recover and some of them are able now to live in a city.

For some people that I know, electro sensitive or ex electro sensitives, some of them live in the countryside and they can come in a city in the city for a conference or during the weekend, but they easily feel depleted and they know, okay, it's it's a short term thing.

I will not spend, a month in New York City or Sandiego or Montreal. It's too much. So in this case, they they become very attuned to what they can handle.

And they just take the recovery, time that's necessary after such exposures. Yeah, but it's more functional. They just have a capacity. And yeah, that awareness to.

So there is hope then you know, so if you if there is you've been injured by mold and you've become hypersensitive to, to mold, to a mass, to your environment and despite, you know, your efforts, it can be very frustrating for some people that are chronically ill.

But there is a there is hope that you can kind of get on the other end of that if, you know, go about it the right way and reduce those burdens, appropriately.

And, and see if one of your specialists or one of your doctors who can help manage that. So are there these centers. That's really interesting. I remember, one last question here, and I'll let you go.

But I remember there were some studies on, you know, kind of building safe houses and stuff like that for people to or like, you know, completely like EMF free or like chemical free sensory, all this kind of stuff.

Yeah, I, I would love to see, you know, more of that out there in the world, too, for some of these really sensitive people. I feel like they almost need some kind of, you know, reset.

And maybe you can do that in nature, too, although I've heard they're starting to try to put although there's controversy there. They're trying to put, you know, some towers or some, some signaling in the parks and stuff so people can still communicate so they don't get lost or something like that, which, I mean, there's probably a reason for some of those things too.

But, you know, are we going to there's are going to come a time where we don't have a lot of places to escape, you know, I don't know. Well, it's difficult and some people are working on projects of EMF free zones.

I know, Doctor Beverly Rubik is one of them. Are you, because I had the, the privilege to talk to her a few days ago

in an interview, and, she's working on such a project.

It takes a lot of money, and they have to do it. Takes so much money because you have to purchase land that is, they're looking for a thousand acres. So. I mean, where do you find that?

How do you finance it? So it will go through people who can donate that money. So people that are philanthropists and that can say, you know, I'm the private owner of that land, and I'm not going to allow Verizon or AT&T or T-Mobile to put those towers on there because it would defeat the purpose.

That's the difficulty with Emfs. Finding those low EMF zones is increasingly more difficult. And it's true that, there are benefits if you bring the towers in, but they are detriments that are not recognized.

So for sure, there are benefits if you can connect at any time, maybe for maybe I would prefer to see the the the satellite phone is being rented out or I don't I don't know, having all phones have the capacity to, to have a satellite phone.

I would rather use the satellites that are already there than put a bunch of towers and irradiate nature and human beings. So we're going to have to find better solutions for sure.

It's very unsustainable. How we use, these VMs, and they do have some benefits to connect the planet and not get lost. And for emergency purposes, they're very useful.

So much that people have a hard time going back to, you know, connectivity. They say, well, if something happens right to my kid or to me, after called.

So we have to, hard in the data and that's a, that's a I'm kind of torn in between myself. I would I would do that myself if. Okay. Well, my kid is is going with his friends.

He's 12. Probably going to hand them a cell phone. But what about the exposure safety exposure. It's kind of it's difficult. And in the meantime we have machines that are inherently unsafe.

And if we could have have cell phones that were, a billion times safer, maybe I would feel better about handing a phone to a kid. But at the moment, it's, it's definitely not in direct in this direction.

We haven't gone in the direction of making these safer and safer every year. And, to the contrary, they're getting more unsafe. Quite potentially. Right.

And then, you know, schools are integrating all that stuff, too. Now, you know, exactly one book or everybody gets a wireless device. There's various devices in each of the classrooms.

Yeah, I know I'm most concerned. I have two daughters myself. I'm definitely most concerned about our, you know, unseen, harm to, you know, the developing brain, the developing immune system and everything like that to, you know, because, you know, I would say know probably there are other forces that could affect, you know, development and, you know, naturally, other adversities anyway.

So, like adding these other things on top of them. Exactly. Just just load, you know, it's toxic load. All right. Well, thank you very much. Any any last thoughts on this, subject?

It's fascinating. Probably talk to you for, like, three hours about this, I'm sure. But, we got to cut it off for today. But I'm sure you'll make an appearance on future summits.

Definitely. I'd love to have a biome summit at some point if we have more answers on that event. Because, Yeah. Always, always fascinating. The the biome project and everything out there.

Yeah. So any last thoughts on, emfs and mold? Any other take home? I, you know, take home messages you want

to give to the audience here? Yeah, we'll just get started.

And don't hesitate to run a few tests for yourself. Turn off the cell phone at night, turn off everything in the bedroom and see if it makes a difference in your in your sleep and a lot of people, even sometimes I, I just do experiments.

I talked to, the clerk at Avis. Random person from my life. I rent the car and talk to her, and she says, okay, what do you do in life? Well, I'm an author about EMS. Okay, EMS. What's that?

And we kind of chit chat for five minutes, and I say, well, just try to turn off your phone at night. You would be surprised how it can improve your sleep.

And the real experiment is when it's, completely blinded.

Low-EMF spaces, recovery, and closing advice

So the husband of that person, the clerk that was there, that the the wife, realize that, oh, my God, I, I don't know what's happening, but I slept incredibly this week, and it was because the phones were off, but without this consent or even knowledge.

And that's a perfect, feedback that I get from a lot of people. It's not like the husband was, looking for it or having some sort of placebo effect. It was just something that happened.

And I made me chuckle a little bit, like like you just did, because it's like, oh, this is a perfect. There has been a lot of husbands, especially men are are very skeptical of emfs like, oh no, this cell phone cannot hurt me.

I'm stronger than that. Right? It's, I don't know. So is it something for sensitive people? I don't know, like what? The thing. But it's true that a lot of people are in disbelief.

So if you want to test it out for yourself or just run an experiment at home in the household and say, I'm trying something new, you know, I heard about your mouse, and it can impact sleep.

Why don't we turn Wi-Fi off when everyone is sleeping anyway? And a lot of people would realize that, you know, I sleep more soundly, or it will just be something that's automatic.

And it's great news for your entire family. At least you're cutting off seven, eight hours of exposure. You can also put it on a Christmas light timer to kind of outlet timers.

You plug it in and you plug the router in there and you turn it off at ten, you open it up at, 6 a.m. whatever you want, and no one's going to even notice that it's gone.

So, yeah, it's it's just something that is is logical. We should cut off exposure that doesn't serve any purpose in your life. So just start there, run your experiment and see how you feel.

Great. Yeah. It's like just shutting off your lights at night. You don't sleep with your lights on, you know what? I don't need it exactly. Light while you're sleeping.

You don't need you. If I were sleeping. All right. Oh, this is awesome. All right, well, thank you very much for your time. And thank you very much for your expertise.

And thank you very much for all the work that you're doing. For the for the world, for, you know, my patients, for, for us, you know, Doc's out there, you know, trying to navigate these complexities all the time as well.

So, Yeah, I appreciate it. You have a nice day, and we'll talk to you next time. Thank you so much. Thank you. For.