Brad Lemley's
Natural Health Solutions

Laissez Faire's Urgent Alzheimer's Summit

Featuring Brad Lemley, Stephen Petranek, and our host Joe Schriefer

***Note**: We recorded the Alzheimer's Summit in October 2015. And while the some of the specific details it contains may have changed, our overall analysis of the Alzheimer's problem is as urgent as ever.*

Perhaps the biggest development since our original recording is that one of our speakers, Stephen Petranek, is no longer with Breakthrough Technology Alert. He left on very good terms, however, and we believe his scientific insights into Alzheimer's treatments are still incredibly valuable. So please enjoy…

Joe: Hello, and welcome to our urgent Alzheimer's Summit. My name is Joe Schriefer, I'll be your host this evening as we go through what could be some solutions and some things that you could do to solve one of the greatest plagues of our time. Again, that plague is Alzheimer's. If you look across the world there are 45 million people right now, suffering from Alzheimer's.

Joining us today as our two guest experts, are going to be; first, from a health perspective, our editor of *Natural Health Solutions*, his name is Brad Lemley. Brad has been a lifelong investigative scientific journalist for some of the largest publications in the nation. So, Brad, welcome.

Brad: Thank you, Joe.

Joe: Then, also joining us, from both a health and a wealth perspective, is my friend Stephen Petranek.

Stephen is editor of *Breakthrough Technology Alert* which is one of Agora Financial's high end research letters. Steve was also editor in chief of the world's largest science magazine, Discover magazine, for a decade. Welcome, Steve.

Stephen: Thank you.

Joe: So, gentlemen, I want to go right in to, before we actually get to the solutions both from a wealth and a health perspective; let's talk a little bit about Alzheimer's. What is Alzheimer's? Why is it so hard for us to look at from a health perspective? Why is it so hard for any biotech companies to solve from a wealth perspective and a pharmaceutical perspective?

Let's start right there; can you define Alzheimer's? Can we talk a little bit about how much of a nasty disease it is and where we're going as far as the future of Alzheimer's research?

Brad: I can begin with a little bit of background on this. Alzheimer's is a chronic neurodegenerative disease and one of the challenges over the course of diagnoses of this disease is teasing it apart from the dementia which is a long-recognized part of the aging process.

Over time, however, Alzheimer's has been recognized as a separate condition simply because of the speed of the degeneration of the neurons involved. Consequently it is now regarded as a condition that is unique in and of itself. One of the ways that this diagnosis happened is that some people get it quite early. Early onset Alzheimer's is an ongoing problem. So, it's a neurodegenerative disease but as Steve and I will talk about, the causes of it have been very difficult to tease apart. Would you agree with that Steve?

Stephen: I would, and I would also jump in to say, that even though dementia is part of aging, and if you live long enough you will get dementia; all of us know people who have lived well in to their 90s or even in to their 100s who are sharp as a tack up until the day they die.

So, there is no reason to assume that aging causes you necessarily to lose your mind; certainly in the way that people who are seriously demented or have serious Alzheimer's exhibit. I think that's a really important thing to thing about because we know that a certain proportion of Alzheimer's patients get their disease genetically; probably about 25 percent although nobody is certain. If you have immediate relatives who had Alzheimer's, if your parents had Alzheimer's, if your grandparents had Alzheimer's and their parents had Alzheimer's, you may be looking at a genetic condition over which you have limited control.

Beyond that, people who lead really healthy lifestyles over a long period of time, often show no signs of dementia whatsoever before they die.

Brad: Right, and I would emphasize that the contribution of genetics to the likelihood of getting the condition is one of the most controversial things about it. You see percentages all over the map on that, so I think it's important even if you have a family history of Alzheimer's not to regard it as a given or as inevitable, because, again, that genetic contribution is a very controversial point.

Stephen: Well, all genetics are problematic no matter what the disease is. You can have, like Angelina Jolie, have mutated genes; BRCA1 and BRCA2 genes and that means that you probably have about an 85 percent chance of getting breast cancer, but not all women with mutations of those genes do get breast cancer.

It's very clear that the way genetics works, is it's complicated by the interaction of your environment and your own history. Not necessarily just breathing diesel exhaust from busses gives you more of a chance of giving you a specific kind of cancer, but other things that are more elusive like stress and the amount of sleep you get can actually contribute dramatically to whether or not genetic triggers are triggered.

Brad: Exactly.

You and I have had some great talks and maybe this is a talk for another conversation, about whether or not genes are a destiny. There's an epigenetic revolution which indicates that the way genes express and talk can change based on a lot of lifestyle habits. Some of the things that I'm going to talk about when it comes to natural therapies that have been shown to either slow or halt or in some cases even reverse the progression of Alzheimer's, I think the actions of, at least some of these, happen on that epigenetic level.

Stephen: Agreed.

Joe: Gentlemen, before the call, we were kicking around some statistics about, again, how many people are suffering from this disease. I said at the start of this call that it was roughly 45 million people around the world who are suffering from Alzheimer's. Steve, before the call, you told me something scary. You said, that that rate, that number, let's say, is set to triple by 2050. So…What's that mean?

Stephen: Yeah, I'll give you some interesting new results. There's a brand new report that comes out from King's College in England, where they're really pouring a ton of money in to trying to understand the effects of Alzheimer's on society around the world. The report estimates that there are more than 45 million people now alive with Alzheimer's, but that by 2050, the number will triple to more than 130 million people. The cost of that in the kind of countries where actually count these things.

We don't even know how many people in places like Bangladesh actually have dementia or Alzheimer's because when that happens to a family member they are kind of put in a room, taken care of, and there's no public health worker that comes by who actually writes down on a form that, oh, in this family there's somebody who seems to have dementia or Alzheimer's. So, the numbers could be actually much higher than that. We do know that about 10 million people a year--that is one person every 3.2 seconds--is diagnosed with dementia somewhere in the world by an actual healthcare person.

The even larger number that's more concerning that comes out of this study suggests that there may be 900 million people in the world with dementia in one form or another and that would include Alzheimer's. That's one out of every eight people.

If you look at populations in places like Japan and Europe and the United States and even Russia, those are all aging populations so, those numbers are actually growing. Even though we say there are 900 million people in the world with dementia and that's 1 out of every 8, that number could be one out of six within 20 or 30 years.

Joe: So, I think it's probably a good point that we transition in to, the stage is set. It's a very, very scary disease and we all have surely seen somebody suffer from it. Let's go through some of the things that you could actually do if you believe you're at risk, if you are at risk, if you've been proven to be at risk. I know Brad, you want to kick us off with some some natural treatments that have shown efficacy against this disease. I know you have a list of many, many talking points. Can you begin to go through some of those now for some people that may be listening?

Brad: Absolutely, Joe. For sake of simplicity, these are grouped according to the sort of category in which they fall.

The first ones that I want to talk about you might call supplements; or supplemental additions to a diet that you might already eat. Then a little bit later we'll get in to some other things.

One of the first ones, and I think this is really fascinating subject — I've been digging deep in to this for about ten years — is the use of turmeric and curcumin against this condition and against a wide variety of inflammatory conditions. The story here is that it's pretty clear that inflammation plays a big role in the development of Alzheimer's disease. Turmeric and what we're talking here about is this bright orange spice that's a major component of curry. It's been used both medicinally and in culinary purposes in India for about 3,000 years. It looks like it has a rather extraordinary ability to moderate, modulate, you might say dial down, the inflammatory response.

Just to quickly set the stage; inappropriately high levels of inflammation in the body which is one of the indicators that this is a lot of what's called C Reactive protein in the body, seems to underlie not only Alzheimer's disease, but a lot of the modern diseases that plague people: cardiovascular disease, Parkinson's, a lot of other conditions seem to have an inflammatory component.

So, Turmeric and its active component curcumin (curcumin is what gives turmeric its color) have efficacy against it. There are studies that show it can help to clear thinking and behavioral problems that are probably related to the buildup of these plaques on the neurons which are one of the hallmarks of the development of Alzheimer's disease.

There was a really great study that happened in Japan in 2012; looked at three Alzheimer's patients. They had irritability, anxiety, agitation, other symptoms.

The findings indicated that the behavioral issues had improved quite a lot when these patients were treated with just a little bit less than one gram of turmeric everyday for a period of three months. When you combined this therapy with the conventional Alzheimer's therapy that they were going through, they had a measurably increased quality of life and improved performance of activities living every day. This is basically what we called "Nancy's Protocol" in the report that the listeners might have heard.

It actually turns out that there's a vast body of evidence beyond this. An ethnobotanist guy by the name of James Duke, who I had the pleasure of meeting and spending a day with a few years ago, published a comprehensive summary of about 700 turmeric studies. He synthesized these and basically concluded that the way turmeric and curcumin work is by blocking formation of these beta amyloid plaques in the brain.

There was a subsequent test, one that he found particularly persuasive and I do too; that mice who were bred to develop this condition showed much fewer of these plaques in the brains when they were examined postmortem.

So, the question becomes, how do you get more turmeric daily into your diet; what specifically do you do? I'm a big fan of the food option. I like the idea of basically keeping it right on your kitchen counter, putting a half teaspoon, that's about a gram of turmeric, into pretty much every soup or stew that you eat or you serve to your family. My favorite way to use it, I start basically every day with a couple of hard boiled eggs, I sprinkle on sea salt, turmeric and black pepper.

The black pepper matters because it's got a substance in it called piperine. Piperine has been shown to boost the body's, and the brain's ability to absorb turmeric. If it turns out that you hate the taste of turmeric, it is kind of an earthy flavor and some people don't like it; you can go to your natural food store and there's lots of supplements that are essentially turmeric extracts.

Look for one in, I'd say, the 400 mg to 600 mg range, and look for one that contains piperine as well because, again, that helps absorption. So, that's my first idea and I think it's got a lot of value, or potential value for people. Let me just run quickly through some more and then we can talk to Steve about his feelings about some of these.

Joe: Yeah.

Brad: I'm a big fan of Resveratrol. There was a pretty recent study; just came out in September of 2015, in the journal Neurology. They had a group of 119 people who had mild to moderate Alzheimer's disease. About half of this group took 1,000 mg, that's 1 gram of Reveratrol, daily. This went on for a year. The other group took a placebo. At the end of the year, the group that took Resveratrol showed no change in the level of protein buildup that characterizes the brains of Alzheimer's patients.

This is kind of interesting; the Resveratrol group showed a smaller brain volume, which sounds bad, but in the case of Alzheimer's it's a positive sign because this disease can cause inflammation and swelling of the brain. So, if you can keep your brain volume relatively low, that indicates that you're keeping a disease under control.

So, Resveratrol is useful. People have heard red wine contains Resveratrol which is true, but don't try to drink wine to get the equivalent amount because the amount these people were taking was the equivalent that you would find in 1,000 bottles of wine. I do not recommend drinking 1,000 bottles of wine a day to keep your Alzheimer's under control. If you decide to take a Resveratrol supplement from the market, get it from a reputable manufacturer, and keep your dosage at under 1,000 mg a day.

Briefly, a couple of other supplements that have been show to have efficacy; vitamins B6, B12, folic acid, magnesium has been shown to have some utility.

Then again, and it seems kind of almost redundant in the world of natural health but, an estimated 80 percent of Americans are deficient in vitamin D, so it's extremely important to keep your vitamin D levels up. There's a couple of ways to do that. One is safe sun exposure, 20 to 30 minutes a day on your arms and face between the hours of 10:00 AM and 3:00 PM. The other way is to supplement. I think you can safely supplement with up to 4,000 IU of vitamin D a day. If you do all of those things I think you've got a good start on both, prevention and to some degree, treatment.

This is another thing I want to emphasize before we start talking and get Steve's reaction. It's very hard to, I would say almost impossible, to tease apart natural preventive and natural treatment activities. They tend to be more or less the same. If you don't have Alzheimer's but are concerned about it, all of these are useful preventive activities.

If you or someone you love have been diagnosed with it, talk with a physician about whether these could be added to a treatment regimen. So, that's it for supplements.

Joe: So, Steve, you said earlier to about lifestyle changes, and I know we're going to get to those in just a moment; I know Brad wants to cover those as well. You we saying and hinting that the idea that getting the proper amount of sleep and reducing stress may have some efficacy in fighting this disease as well. Before we get to that though; any reaction to Brad's supplement routine? If not we move on to, I know Brad wants to cover some foods to eat and then we can get in to those lifestyle changes.

Stephen: Well, I think that a study of three people in Japan is not enough of an indication to get an FDA approval for something and the drug companies are often cited as saying, they are not interested in supplements and they're not interested in naturally occurring things like black pepper and turmeric because they can't really market those.

That's actually not true. There's been an extraordinary amount of investigation. The FDA and NIH have whole departments in which they're constantly trying to evaluate supplements like this and that work continues. I certainly can't see any harm in taking, sprinkling turmeric over your eggs in the morning or over anything else. I, myself eat a lot of black pepper because I know that it's actually good for you. I fully agree with Brad about getting enough vitamin D but if I can kind of transition from that into the lifestyle changes because I think these things are actually all related.

About 20 years ago when I was doing some work with the Framingham Heart Study, which is the oldest continuous study of health in the world.

It started back n the 1940s with people in Framingham, MA, and they're now actually on 4th generation people there. That was primarily, it was an overall health study, but out of it came this concept that high levels of cholesterol may not be good for you and that smoking is not good for you and that high blood pressure is a significant problem.

I will never forget Dr. Sydney Wolf, telling me a number of years ago, he said, you know, we found out that high blood pressure is going to give you a heart attack if it's untreated. If you keep smoking it is more of an indication that you will probably have a heart attack. If you eat a lot of the wrong foods, that might help lead to a heart attack. If you don't exercise enough, that might lead to a heart attack.

I remember him saying, what we're starting to see with our 3rd generation people, now that we're getting enough autopsies, we're starting to see Alzheimer's and we're starting to notice that the people who don't control their blood pressure, who smoke, who don't get enough exercise, who have too much cholesterol in their diet; that those very same people are the ones, the people who are having the heart attacks and strokes, are the people who have Alzheimer's in their brains when we do the autopsies. So, I think there's a very strong relationship between lifestyle and dementia and this disease.

For example, we know that if your carotid arteries in your neck start clogging up from too much plaque, which is pretty much can often be an indication of how much, simply how much exercise you get in your life and the kind of foods you're eating, we know that, that in fact alone will give you dementia; if you have decreased blood flow to the brain.

So, there are many, many elements to this and a lot of how long you live and how healthy a life you live is really related to a lot of lifestyle factors. One of the newest, is sleep. The FDA has now come out and said that there are three legs to the stool of healthy living. There used to be only two legs on this stool and the two legs were diet and exercise. Now they've added a third which is sleep. Americans, where we work far harder and far longer than any country in the world, literally; Europeans now get eight weeks of vacation a year and they take it. Americans get two weeks of vacation a year and a lot of them don't even take it. There's no such thing as a 40 hour work week in the United States anymore. Everybody I know works 60 or 70 hours a week and often everybody in the family is working that long.

We have incredibly stressful environments. We work long hours and we tend to compensate for that by getting less sleep. Sleep has become a critical medical identifier for longevity and for health. The FDA is now really getting on this bandwagon and trying to tell people to get more sleep. One of the most interesting things about it is the number of hours of sleep. You can get too much sleep; you should not get more than nine, studies indicate that you should not get more than nine hours of sleep a night but you shouldn't get less than eight and that eight and a half is probably ideal for most people.

This is something that's really just like getting enough exercise every day. This is something that's really difficult to program into American's lives because they work so long and they work so hard. Taking 30 minutes off every day, and it probably should be an hour, to get significant exercise everyday and getting 8½ hours of sleep every night, really cuts in to the kind of lifestyle that Americans lead. In the long run, I think it's just as important as anything else you can do.

Brad: Right, I couldn't agree more Stephen. It's really interesting when you look at the intersection of obesity and diabetes in Alzheimer's disease, and then when you look at the influence that sleep has been shown to have on these conditions, it's really fascinating to see that in the last ten years.

The idea that lack of sleep can mess up the hormones that influence hunger and satiety; and consequently, when you don't sleep enough, you are hungrier than you would be otherwise and end up eating more. That in turn can drive obesity and that in turn can drive diabetes and those same sort of inflammatory factors that drive those conditions also seem to be implicated in Alzheimer's. So, it all really sort of ties together. That's a good point that you made about sleep. It's very important. It's absolutely vital and you're right, people don't prioritize it. They don't make time for it and it's extremely important to do so if your health matters to you.

Stephen: As you say, all these things are tied together and one of the links that ties all these together is stress itself. If you have, I spent many years going into the office, making a list every morning of everything I had to do, and by the end of the day only about 1/3 of the things were checked off of the list.

I would go home where I had other responsibilities to do and I couldn't check everything off those lists either. The kind of stress that I felt for a number of years, I came to understand was extremely significant in my life.

I tried to develop, many years ago, different strategies for relieving this stress. One of the things that was obvi-

ous to me but now is actually confirmed in a number of scientific studies and may seem obvious to other people as well, is that when you're under stress, you look for satisfactions that can give you kind of an instant sense of comfort and well being in the midst of that stress. That leads you to really bad foods that are full of sugars. The whole concept of sugar addiction which many Americans are experiencing and is hurting their health, actually flows out of stress, primarily.

People who live in low stress environments do not eat high sugar diets. They don't eat a lot of white stuff like white flour. It goes back to the same old thing that everybody's been hearing for years and years but it can't be emphasized enough, that dies and exercise and sleep are cures that are easily available to people.

Almost anybody with type-2 diabetes can get rid of it. I have a number of friends who have taken on serious exercise regiments, who have lost significant numbers of pounds, and their doctors have completely taken them off their type-2 diabetic medications and their A1C sugar counts are down to normal.

So, many of the things that afflict us such as heart disease and strokes and dementia and possibly even Alzheimer's, we have much more control over than we think we do.

Brad: Absolutely.

Joe: So, just really quick to recap what we've covered for everybody at home here tonight so far. First was a supplement routine that Brad went through. It included of course; you have to correct me on my pronunciation on this, it's turmeric, is that correct Brad?

Brad: Turmeric, that's right. That is right.

Joe: Okay, so it's turmeric and specifically 400 mg to 600 mg of turmeric. Second was Resveratrol; up to 1,000 mg per day or less of Resveratrol. Vitamins B6, B12, folic acid, magnesium and a vitamin D supplement.

Brad: Correct.

Joe: That was the supplement routine. Second, we transitioned, again just to keep track for everybody; in to different lifestyle changes you can make.

One of course, is getting the proper amount of sleep of which Steve outlined, somewhere lies between, let's say eight to nine hours of sleep a night. Reducing stress levels goes along side of that.

Brad, you also are a big believer in exercising the brain. Can we talk about that for just a second?

Brad: Sure.

Joe: Do sites like Luminosity help or are there other easier ways, let's say free ways, without subscribing to a membership site that someone could exercise their brain, to look at that lifestyle change?

Brad: Well, first of all, when we talk about exercise, we're talking about two kinds of exercise, both of which have been shown to be useful as adjuncts to Alzheimer's therapy; body exercise and brain exercise. It's actually pretty debatable which of those is more valuable. I tend to think the research around exercising your body is even a little more compelling, but let's talk about both of them.

There's a fair amount of evidence that when people remain mentally active, mentally engaged — either in solving challenging puzzles or something as straightforward and basically human as maintain strong social ties, which is obviously in and of itself, something of a mental exercise. To converse with people, to keep up with them, to keep up with the conversation; those sorts of mental exercises have been shown to be protective not only against getting Alzheimer's, but in slowing the progression of the disease.

There's also a lot of research around exercising your body. It appears that exercise can trigger a change in the way the precursor protein to amyloid beta deposition is metabolized and it increases the levels of a protein called PGC 1Alpha. Low levels of that protein are associated with the brains of Alzheimer's patients.

Exercise is one of those things that comes almost closest to a universal cure for most of the diseases that are ravaging particularly, the developed world.

It's extremely important to get daily activity, if not exercise. This doesn't mean you have to run a marathon, it doesn't mean that you have to train for Mr. Universe in the gym. One of the things that's been shown to have as much efficacy as anything else, particularly as people get older and perhaps physical limitations prevent them from doing some of these more strenuous sports related activities, is just to walk. Walking an hour a day, I could give you a sheaf of studies that indicate that just that much activity has been shown to be protective; and Alzheimer's is no exception. So, exercise your body and exercise your brain.

Joe: Steve you mentioned

Stephen: If I could just jump in on that. I have recently become convinced that walking is the best possible exercise you can do. I love to bicycle and I love to swim because I think they are low-impact on your joints and other parts of your body that are going to age whether you like it or not. I've recently become convinced by reading a number of studies in the last couple of years, that walking may be absolutely the best exercise there is. I now spend an hour everyday hiking and I love it. I try to find remote places to hike where; it actually I think serves a dual purpose. It not only helps your body physically, but I think it helps your brain a lot too because I think it's actually a form of meditation.

We know, we have so much anecdotal evidence over long, over 100s of years of time, that people come up with great solutions to great problems while they're walking. We used to say it happens in the shower but it actually doesn't happen in the shower. If you talk to people like Stephen Hawking, you find that it actually happens when people walk and when they exercise.

So, that form of low impact exercise that allows your brain to wander is good for both what's going on upstairs and what's going on downstairs.

Joe: Steve, a moment ago you mentioned this kind of downward spiral of sleep, lack of sleep, high stress levels, leading to sugar consumption. Let's focus on food for just a second. There are certain foods you should obviously avoid; foods packed with sugar, other foods that you should look to consume a little bit more of. Brad you've got a list of those that you believe, not only could help obviously in the fight against Alzheimer's, but against a whole host of other problems that eating right can avoid too. Can you go through some of those foods as well?

Brad: Yeah, increasingly what we're discovering when it comes to the development of a lot of diseases, is that Americans are consuming far too much sugar and far too much flour. I like to call these a-cellular carbohydrates.

A-cellular means they are so highly processed that even if you put them under a very powerful microscope, you won't find any cell structure; they're utterly destroyed. This means that when you ingest them, the enzymes can quickly take them apart, quickly make them available to the body systems for converting them to blood sugar, and your blood sugar spikes massively. That's followed by a dip and a hunger and a desire to consume more so it's extremely important to limit consumption of added sugar.

The average American eats 160 pounds of added sugar a year. In my view, that's about 140 pounds too much. Your need for sugar is far lower than that, in fact, whether you need added sugar is debatable; I don't think anybody does.

The other thing that I think is important in this realm, and I'm doing more and more research in to this question; we've been told for a long time that polyunsaturated oils are the heart healthy oils.

Things like soy, canola, corn; but, as it turns out, the reason that these oils more or less foisted upon the American consumer wasn't that they were healthy. It's because they exceptionally cheap to produce. We don't have any evolutionary history with these polyunsaturated oils and the problem with them is that chemically, they're extremely unstable. They break down, they oxidize; when they go into the body, the body responds to them with that inflammatory response that all that's been talking about through this call.

If you want to make a dietary change that involves avoiding troublesome foods, the three most troublesome varieties of food are sugar, flour, and polyunsaturated vegetable oil; the liquid, golden oils that you'll see are very inexpensive on the supermarket shelf. Stay away from those to the maximum extent possible.

In terms of what to emphasize; a lot of people have heard this information for a long time but first and foremost, you got to eat your vegetables. Vegetables are without a doubt, the best form of folate. We should all be eating

plenty of veggies every day. Avoid supplements with folic acid, that's an inferior, synthetic form of folate. Vegetables provide the whole spectrum of nutrients that people need and they are neuro-protective, they are cardio-protective, and they're really important.

Now, it's kind of interesting when you get beyond eating vegetables; and by the way, I emphasize vegetables over fruits for a reason. People can over consume fruits, particularly tropical fruits which are extremely high in sugar. When you get away from the dietary component that is vegetables and fruits, things start to get a little bit controversial.

There's a lot of dispute these days about the role that grains can play in a healthy diet, about the role that meats can play in a healthy diet. I happen to believe that food sources of saturated fat have been shown to be neuro-protective but there's still a lot of skepticism around highly saturated fats. These are the sorts of fats that you find in beef, for example.

I think a compromise that we can come to that vegetarians and carnivores can agree on is the value of coconut oil, which I am very pleased to see has made a huge comeback on the commercial markets in the last ten years. Coconut oil is an extremely healthy oil. I believe that it has neuro-protective capabilities and it's delicious. Incorporate coconut oil in to your diet for cooking. Also, and Steve and I have talked about this and I think we agree pretty heartily on it; there's a lot of evidence that shows cultures in countries in which people eat a good deal of fish, particularly cold water fish that has a lot of healthy fats in it, including omega-3 fatty acids, tend to have a lower incidence of a lot of these inflammation based disease including Alzheimer's disease.

Again, from a dietary perspective I would say, less sugar, less flour, less polyunsaturated vegetable oil, more vegetables, more fish, more coconut oil.

Stephen: Sounds pretty good to me. Brad, I wonder if you would be willing to comment for a minute on the problem of, if you go out and buy supplements, and by and large I do not believe necessarily in supplements; I believe in getting the real thing, trying to get the stuff in your food as much as you can.

You sprinkle turmeric on your eggs in the morning, I think that's far better, frankly, that going out and getting a turmeric supplement. If you do decide to go out and get supplements, I think it's very difficult to know that you're getting what you're getting. There's a lot of evidence out there that that's true.

I used to work with someone who had a very prominent role in a supplements company and he told me that about 90 percent of all the base materials that come in to supplements come in from China, that China had really cornered the market on this. If you're going to buy a vitamin C pill, the vitamin C is going to come from China. He said that they tested every single batch of material that they got from China and they found corruption in a very high percentage of the materials that were being sent to them.

Things like gypsum and all kinds of horrible things had been added to what they thought was a pure product.

I have noticed, for example, that Costco, and I'm not trying to pick on a brand here, but Costco recently has chosen to certify their supplements under their brand and they have a little label on it; it's USP which is an independent laboratory that certifies what's in, say if you're getting CoQ10 or something like that, you see the little USP label, it certifies that you're actually getting what you're supposed to get in there.

Brad: Right, you're right. You're mentioning a problem that I think a lot of people are concerned about. I think the fortunate thing is that there are independent resources that take on the question of vitamin quality and look at what's in there and whether you can indeed trust what's written on the label.

My favorite is a company called Consumer Lab which I subscribe to. I'm all over their site, all the time. Consumer lab runs independent assays, they go out on the market and buy the supplements anonymously, run them through independent testing and they look at whether or not it has in it, what it says it has. In my experience, 1/3 to the ½ of the time, it doesn't have the amount or in some cases, it's got too much. They also look at the binders, the fillers, the excipients that are used as conveyors of these nutrients and sometimes they will find something funky like lead or some other toxin.

It's a great resource and I urge people to do a Google search on Consumer Lab, or you can subscribe.

There are other certifying agencies as well but I'm most impressed with Consumer Lab.

You're right, it's a tough business. The supplements business is tough. Living Well Daily, the company that I'm working with, is in the business and I know that we bend over backward to make sure that there's quality assurance around the supplements that we sell. You can't just go on the market and find the lowest price supplement. You absolutely need to get some independent verification that it's got what it say s it has and not too much of that and it's not in a binder that is toxic or otherwise hazardous.

Joe: One more things about those supplements before we move on, and I just want to cover the wealth perspective here in a second; but another thing that I've always found interesting about supplements too that's kind of behind the scenes that most people don't know, is that they often times, the supplement companies will quote studies. The amount of the active ingredient in the study isn't anywhere near the amount of the active ingredient in the supplement.

Brad: Right.

Joe: So, you have to actually look out for that as well, right Brad?

Brad: Right.

Joe: I mean, I understand that the idea is the study is conducted around consuming 1,000 mg of something and then someone wants to pass of a supplement company, or a supplement, as 200 mg of that; obviously, the effects are nowhere near the same as what the people in the study may have seen.

Brad: That's exactly right. Jasmine LeMaster, at Living Well Daily and I, spend a lot of time looking for what we term the research or reference dose. In other words, with a K2/D3 product, combines vitamin K2 and vitamin D3; we took a really close look at a lot of studies and tried to figure out what was the dosage of both, but particularly K2 which is a newer nutrient, that had been shown to have the efficacy that was demonstrated in these studies. That's how we came up with both of those dosages.

So, yeah, it's both art and science but, generally speaking, what you want to do is find a range of studies. Then figure out which studies show the most positive effects. Then, figure out what the dose was in those studies and then make the product that you offer have a dose that reflects that dosage.

Joe: So, for everybody following at home, Brad has conducted all of this research. You can find it in all of the special reports that we're delivering you with your lifetime subscription.

To move on every briefly to the wealth side of things. Earlier in the call I mentioned that Steve Petranek, joining us today, is editor of a newsletter called *Breakthrough technology Alert. Breakthrough Technology Alert* shows you how to profit as new technologies change the world around you. One of the technologies that Steve focuses in on are biotech companies. We wanted to talk a little bit about the billions and billions and billions of course, that have been spent by biotech companies on trying to fight Alzheimer's. Steve, before I get to you there, just to set the stage again for the readers a little bit. In Steve's newsletters, he's led people to gains up to 287 percent with a company called Tetraphase Pharmaceuticals. He's also closed gains of 201 percent on a company called, and you'll have to help me with the pronunciation, it Chimerix?

Stephen: Chimerix.

Joe: Yes, so, you've got roughly 287 percent gains that you've already shown to readers in Tetraphase and 201 percent with Chimerix. So, let's talk a little bit about the wealth perspective. Is there money to be made in buying biotech companies that are trying to fight Alzheimer's and then, if there is money to be made, who is the best company or companies to buy out there right now for a shot at, not only doing good by investing in the companies that are investing in these things, but also making money as well?

Stephen: Well, first let me say that nothing makes me happier than getting a triple or a quadruple or a quintuple stock, and we've had a few of those in the portfolio in the last couple of years.

I certainly have an awareness that if somebody develops and Alzheimer's drug that works, that this is going to be the biggest blowout success in the drug world in the history of drugs. It will make successes like Lipitor look

like kindergarten by comparison because you have the potential of a billion people who need to take this drug and you will be able to charge almost anything you want for it.

The problem is that this, nothing in medicine – we're on the verge of a golden age in medicine in which we're probably going to probably cure most cancers in the next 10 years, in which we're probably going to be able to reverse most of the effects of heart disease in the next 10 or 15 years, in which we're going to be able to take organs in your body that don't work very well anymore and inject stem cells into you and make those organs work again.

So, we're just in this amazing period of medicine going forward with the exception of Alzheimer's.

The journal Science recently reported that 123 medicines on which drug companies have spent untold billions of dollars intending to treat Alzheimer's disease, failed to make it through FDA trials between 1998 and 2014. So, in 16 years, 123 medicines, and it costs about $100 million to put a medicine through phase 1,2, and 3 trials; 123 medicines for Alzheimer's has failed. In that timeframe, only four drugs have been approved. Razadyne, Namenda, Exelon, and Namzaric. Namzaric is a combination of the only other Alzheimer's drug that was approved back in 1996, called Donepezil and another drug called Memantine.

So, really, we have about four drugs out there. There are five drugs on the market but only about four real drugs that have been approved in the last twenty years that offered any kind of treatment.

I want to emphasize the fact that they are treatments. Even the Alzheimer's Association says, they tend only to mask symptoms; they do not delay the progression of the disease and they don't treat the underlying cause. Part of the reason they don't treat the underlying cause is that we still have no idea for sure what is actually causing this disease and how it works. We cannot even tell if you have Alzheimer's while you're alive. The only way we can tell you have Alzheimer's is if we do an autopsy on your brain after you die. So, this is a really big conundrum for the drug companies.

Nonetheless, because the pot at the end of this rainbow is so huge, the drug companies are not giving up. There are almost 1,700 studies at the moment that you can find under clinicaltrials.gov, which is the FDA listing of drug trials. If you go there and you plug in the world Alzheimer's, you'll see there's 1,673 studies and more than 500 of them are still open studies, trying to find something that will actually cause your Alzheimer's to get better rather than just mask the symptoms of it.

A year ago, I gave a soft recommendation. That means I didn't put it in the portfolio because it's a large pharmaceutical company; large pharmaceutical companies in general do not grow as fast as I want them to grow. A year ago, I visited Eli Lilly Company and I looked at what they had in the pipeline and what they were working on.

I was relatively impressed with a drug that they're working on for Alzheimer's that actually had failed Phase 3 tests, but that they were going back and doing another Phase 3 trial on. That drug is called Solanezumab. It's kind of difficult to pronounce. What happened in the study was that the drug didn't show any difference over a placebo and one of the complicating, difficult things you have going on in an Alzheimer's trial is that people are getting worse because time is going by. So, a measurement of a drug's effectiveness two years later when somebody is deeper into Alzheimer's compared to when the study started is a very difficult comparison to make.

The people at Eli Lilly noticed something about this drug, even though it failed, which was, it looked like the people that had very mild and early onset of Alzheimer's were responding to the drug much better than people who had more serious phases of the disease. People in the trial who didn't get the drug, because it was a double blind study so you don't know as a patient in the study if you're getting the drug or not; after 18 months, all of the people who were in the study who had gotten the placebo, the sugar pill, were given the opportunity to go on this drug. They went on the drug by in large, most of them, and those people have been tracked, both the people who were on the drug and the people who chose to go on the drug have been tracked for about four years. What they saw was, that the people who went on the drug later, after 18 months, did not do as well on the drug as the people who were on it earlier.

All of this led Eli Lilly to determine that if you got an early enough diagnosis of Alzheimer's, you were what was considered very early on, in other words, we don't really know if you have Alzheimer's, you seem to be having some problems, maybe you have Alzheimer's maybe you don't; if at that point you were to give people the drug, that it would delay the progression of the disease. It wouldn't stop the disease and it wouldn't cure it. Lilly is about

to dose the very last patient in this new Phase 3 trial. The last patient will be dosed next month. The results of the trial won't be available until 2017.

So, when I recommended, gave a soft recommendation for Lilly last November, it was selling for about $62.00 a share and today it's selling for about $84.00 - $85.00 a share. So, the company has gone up 33 percent in the last year and that's based partly on other drugs in the company's pipeline because it has a rich and very interesting pipeline of drugs that are going through studies.

I think a lot of that, I would guess that 2/3 of that is based on the possibility that this drug Solanezumab will actually be successful in early onset Alzheimer's patients.

I think the FDA is very eager to approve any drug that shows any efficacy. Lilly is a company that I think has a shot at this. Now, one of the things that's happened in the last few years is that stock analysts have started putting, have almost become like Las Vegas bookies; they put indications on drugs giving their chance of success in Phase 3 trials. So, they'll say, well this drug has a 20 percent chance of being successful and that drug has a 50/50 chance.

They're usually pretty wrong about this stuff but if I were making a guess about this, I would say that there's probably about a 40 percent probability that this drug will come through Phase 3 trials. If it doesn't and it fails, my guess would be that Lilly's stock goes down less than ten percent, if it goes down even that much. If it succeeds, I think Lilly's stock could go up 50 percent and that could happen overnight.

So, the upside potential with Lilly, with a drug that's actually in Phase 3 trials, is very substantial I think. In other words, the upside risk, is so much greater than the downside risk in the price of the stock, and it could be a real runaway success in a way, if it gets through Phase 3. I think that is a very interesting company to invest in.

Now, there's just one other drug company that's kind of close on a Phase 3 trial with Alzheimer's that's significant and it's public that you could buy into and that's Biogen. They have a drug called Aducanumab and the trials with that look pretty promising. It's going to be a year or two before we see results of that. Again, I don't like to invest in big drug companies like Biogen or Lilly because generally, when they have a success with a drug, it's such a small percent of additional revenue to the company that it's not going to move the stock price enough; but I guarantee you, anybody who has success with a Alzheimer's drug, the stock is going to go up like crazy. It's going to go up at least 50 percent.

By the way, my guess would be, that let's say that Lilly did have success and let's say the stock was selling for about $100.00 a share and all of a sudden, the day that they announce their success, the price goes up to $150.00, $160.00, $170.00 a share; my advice would be, if you happen to be invested in that and that announcement comes through, sell on the spot because I think there's going to be a tremendous reaction, and emotional reaction if you will, to this success. I think afterwards, when people start looking more carefully at the drug and begin to realize, oh, this really isn't a cure for Alzheimer's, it's going to make it better for a lot of people but it's not a cure, that the price will start falling.

So, Biogen and Lilly have interesting drugs. Lilly is kind of my favorite on this, but there's a sleeper in the works here too which is Johnson & Johnson. Johnson & Johnson is the old tried and true company but if I was putting my grandmother's money in something, I might put it in Johnson & Johnson because it pays three percent dividend and it always goes up over a long period of time; it's kind of like buying a house and probably has very similar margins to buying a house over a long period of time. Johnson & Johnson has about ten drugs in their pipeline right now, all of which could be blockbusters.

If there's any company in the world that has invested the most money and the most effort in trying to figure out Alzheimer's, it's Johnson & Johnson. They've had a number of failures but I think eventually, they're going to succeed because I have never seen a company that is so focused on a single disease as these people are. They are really, really trying to figure out Alzheimer's. So, Johnson & Johnson would be an interesting company to look at as an investment over a long period of time. I don't think you're going to see something, an Alzheimer's drug, coming out of Johnson & Johnson within five years, but five to ten years from now, it could be a huge play. Remember, the price of Johnson & Johnson as it always has, is going to continue to go up over time.

Now, there are several nonpublic companies, actually two, or three, that I'm very interested in but you cannot buy stock in them now, but they are really worth watching. When they do eventually go public, if they don't get

gobbled up by a big pharmaceutical company first, they could be very interesting plays. One is called FORUM Pharma, that's F-O-R-U-M, and they are working on a drug called Encenicline, and they're in Phase 3 trials. Now, they have six Phase 3 trials and different ways of using this drug against Alzheimer's.

Four of those trials were just stopped on September 16th, by FDA because of complications with abdominal problems that occurred as side effects of people taking this drug. I have no idea quite how this is going to turn out for them. Two of those trials is still continuing. FORUM is in deep discussions with the FDA. The FDA I think is as interested as it could possibly be in trying to get Alzheimer's drugs on the market. We will see how that proceeds but that's still a very promising drug and that will report results within the next year or so.

Joe: Hey Steve, I don't mean to stop you there but it's probably a good transition to your newsletter. I know you said that you have three kind of private companies not yet public, but quickly, to tell people about your newsletter. This is what you do in *Breakthrough Technology Alert*, you follow both the publicly traded companies and tell people, tell your subscribers, when you recommend the best time to get in, when you recommend the best time to get out for, hopefully, the maximum amount of profit. Then you also take a look at these private companies and if they were to go public, you also recommend the companies that you like that are new public companies to your readers as well, is that correct?

Stephen: That's correct. We have invested, my favorite philosophy is to buy a company's, a small biotech company's stock after successful Phase 2 trials and sell before the Phase 3 results come in, because a lot of these Phase 3 trials that everybody is super optimistic about and says, oh, this is such a promising drug, look at well it did in Phase 2; comes along Phase 3 and wham, something goes wrong. That recently happened with Tetraphase and if we had not sold about 50 percent of our Tetraphase stock before that happened, we wouldn't be ahead on Tetraphase, we'd be about even right now, but we're way ahead on Tetraphase because we know how to sell as we get in to success. So, that's my favorite philosophy.

I also have another part of a newsletter that is doing very, very well in which I'm following companies that are not public and then when they go public, I look at what the market does with them. Now, in the kind of biotech bubble we've had in the last year, some of these companies go public and their evaluations are so high, it's unbelievable. So, I just pass on those and I continue to watch them and what happens is the market tends to figure out overtime, over the next six months or so, oh, maybe that stock isn't actually worth all that much and that we're riding a little too much on promise and hope here. Then the price goes down and then I will put people in to that stock.

We have several companies that we've done that with in the last year where the IPO price was too high, but then I knew what the companies were about; I thought they had terrific promise and when the price of the stock went down, that's when we bought in and now it's come back up again.

Joe: So, if you're at home listening and you want to know the specific timing plays that Steve recommends, again, his newsletter is called *Breakthrough Technology Alert.* About once a month he releases a new recommendation and of course, he again, he's going to tell you when he thinks it's time to exit any recommendation that he's made. So, again, the newsletter is called Breakthrough Technology Alert. We've set up a special deal for anybody listening tonight. To claim the special deal and learn more about Steve's newsletter, I'm going to give you a phone number; it's a phone number you could call, you just tell them that you've listened to the Urgent Alzheimer's Summit and you'd like to learn more about Steve's *Breakthrough Technology Alert.* That phone number is; 1 (800) 708-1020. So, once again, 1 (800) 708-1020.

So, gentlemen, I think we've run just about an hour now so I thank you for all your time today. I know it's an extremely important issue that a lot of our readers are concerned about. We appreciate both giving the health perspective and of course the wealth perspective. Any kind of parting thoughts Brad, before we end our call today?

Brad: I guess what I would say is that the thing about Alzheimer's disease is that there are lifestyle, there are dietary interventions that do show efficacy. I do believe that some of these natural molecules, and I dare say unpatenable molecules that are out there in the form of substances like turmeric and curcumin, have been shown to be efficacious as well. The important action to take against Alzheimer's is preventive action because Steve is absolutely right, once this disease takes over a person's mind, there are physical and quite frankly, very difficult to reverse changes that happen within the actual structure of the brain itself; the cerebral cortex shrinks, the hippocampus shrinks, the ventricles enlarge.

So, to reverse that sort of structural damage, that's a very difficult thing to do. The way to keep Alzheimer's out of your life is to do all that you can from a lifestyle standpoint to engage in preventive practices that keep it at bay and I think that there's a lot of evidence that the sorts of things that we've been talking about today have real value.

Joe: So, Brad, thank you very much. Steve, thank you very much. Again, for everybody listening at home tonight, 1 (800) 708-1020 is the number to call if you're interested in learning more about Steve's newsletter. Again, 1 (800) 708-1020. Thank you very much gentlemen.

Steve, any final comments from your side?

Stephen: Well, Brad I think summed it up perfectly. I would, until the drug solution comes along, and I am very confident it will come along because so much time and energy and money is being spent on it; but until we get the solution for Alzheimer's, I would simply tell people to get more sleep, learn to meditate and practice meditation, eat less sugar, everything you know, and exercise more. It's a very simple process. We've been hearing things like this for a long time. People need to pay a lot more attention to it.

Joe: Great. Gentlemen, thank you very much and again, for everybody listening, you can follow along with all of Brad's research in your monthly newsletter. For Steve, 1 (800) 708-1020. Thank you guys very much.

Stephen: Thank you.

Brad: Thank you.

Closing note: *As we mentioned, Stephen Petranek is no longer with* Breakthrough Technology Alert. *But the publication continues under a new editor, and it's still dedicated to helping you profit from the earliest stages of medical and technological advances. Please call 1 (800) 807-1020 if you'd like to learn more.*