This Peptide May Help Regrow Damaged Nerves Transcript

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Nerve Pain and the Promise of ARA-290

Imagine:

Imagine: your feet are burning at night, your your feet are burning at night, your fingertips are fingertips are tingling, and your tingling, and your test results are test results are normal every time. The medications you normal every time. The medications you take take take mostly only mostly only dull the pain, but the dull the pain, but the damaged nerve damaged nerve remains in the same remains in the same condition. Now imagine a condition. Now imagine a peptide designed for a peptide designed for a different purpose—to different purpose—to command those nerves command those nerves to repair themselves. This is the to repair themselves. This is the main promise of ARA 290. In today's. In today's video, I'll explain what it is video, I'll explain what it is, how it's supposed to, how it's supposed to work, and work, and how much of this how much of this promise is backed up by promise is backed up by research. Welcome research. Welcome to the podcast " Dr. Jones' Optimization Academy." I'm Dr. Jones' Optimization Academy." I'm Dr. Greg Jones, a Dr. Greg Jones, a naturopath and naturopath and founder of founder of Innovate Wellness Center here in Innovate Wellness Center here in Phoenix, Arizona. I lecture. I lecture and teach around the world and teach around the world on on on peptides, peptides, peptides, hormone optimization, hormone optimization, and and and longevity medicine. Today longevity medicine. Today we will we will take a detailed look at ARA 290.

take a detailed look at ARA 290. As a reminder, this is educational As a reminder, this is educational content, not medical content, not medical advice, so please consult your doctor before advice, so please consult your doctor before making any making any decisions decisions.

What ARA-290 Is and How It Works

So,. So, let's start with a description of ARA 290 let's start with a description of ARA 290 and its principle of operation. and its principle of operation.

You may have heard of You may have heard of erythropoietin, or EPO, a hormone that some hormone that some athletes have athletes have athletes have used to used to increase increase increase red blood cell count to red blood cell count to improve performance improve performance and endurance. It's and endurance. It's produced by your produced by your kidneys, but it also has kidneys, but it also has another function unrelated another function unrelated to red to red blood cells. This is blood cells. This is to protect your tissues, to protect your tissues, particularly your nerves, in particularly your nerves, in case they are damaged. A blood-thinning drug is a bad idea blood-thinning drug is a bad idea for someone who already for someone who already has inflammation.

has inflammation. So the researchers So the researchers took a small took a small fragment of EPO made up of 11 fragment of EPO made up of 11 amino acids and amino acids and created a version that created a version that retains its protective retains its protective properties but does not properties but does not stimulate stimulate stimulate red blood cell production. This red blood cell production. This fragment—ARA 290, also fragment—ARA 290, also known as sebinetide.

known as sebinetide. This is how This is how this division of functions should work. this division of functions should work. EPO acts through the EPO acts through the erythropoietin erythropoietin erythropoietin receptor, and the result of receptor, and the result of its work depends its work depends on the partner. When on the partner. When two EPO receptors two EPO receptors combine, the signal combine, the signal to the bone marrow is to produce red blood cells. When the. When the erythropoietin erythropoietin erythropoietin receptor receptor receptor combines with another combines with another partner—the general partner—the general beta receptor— beta receptor— the signal changes to the signal changes to “protect and “protect and repair.” The repair.” The developers called developers called this second combination the “ innate innate repair receptor” and repair receptor” and hypothesized that it hypothesized that it appears appears appears primarily on primarily on cells that

are cells that are damaged, inflamed, damaged, inflamed, or under or under metabolic metabolic metabolic stress—precisely where stress—precisely where repair is needed. ARA 290 is designed to interact interact interact specifically with this second specifically with this second type of compound, type of compound, bypassing the first.

bypassing the first. After docking, After docking, the cell the cell receives two receives two instructions simultaneously. The first is to calm down.

calm down. ARA 290 is reported to ARA 290 is reported to inhibit inflammatory inhibit inflammatory messengers such as tumor necrosis factor alpha and tumor necrosis factor alpha and interleukin-1 beta. And interleukin-1 beta. And it affects it affects activated microglia —these are immune cells in —these are immune cells in the brain and the brain and spinal cord that spinal cord that remain in remain in attack mode after injury and attack mode after injury and constantly generate constantly generate pain signals. This is pain signals. This is important with important with nerve pain nerve pain because prolonged because prolonged inflammation is what inflammation is what makes the pain persist makes the pain persist over and over again. The second over and over again. The second instruction is to survive and instruction is to survive and recover, and this is where nerve fibers come into play.

nerve fibers come into play. Imagine a smoke detector Imagine a smoke detector that only goes off when that only goes off when something something something starts to burn.

starts to burn. Think of ARA as a finger on a Think of ARA as a finger on a test button. test button. Press this Press this button, and the inflammation button, and the inflammation should subside, and the should subside, and the damaged nerve damaged nerve fibers will receive a fibers will receive a stimulus for stimulus for regeneration. It is worth regeneration. It is worth noting that this noting that this receptor was receptor was described by the described by the described by the drug developers. And in 2018, an drug developers. And in 2018, an independent independent independent laboratory was laboratory was unable to confirm the unable to confirm the physical bonding of physical bonding of these two parts. So these two parts.

Potential Benefits for Small Fiber Neuropathy

So this is just a working this is just a working hypothesis that hypothesis that fits fits fits the results, but the the results, but the biological side of biological side of the issue is not yet the issue is not yet fully understood. What fully understood. What could all this mean could all this mean for Somanadi? The most for Somanadi? The most obvious target is small small small fiber neuropathy. This is fiber neuropathy. This is damage to damage to damage to the finest nerve the finest nerve fibers in the body fibers in the body that transmit that transmit sensations of burning, sensations of burning, temperature, and temperature, and automatic signals automatic signals that control that control digestion and digestion and heartbeat. This heartbeat. This damage damage damage is exacerbated by is exacerbated by sarcoidosis, diabetes, sarcoidosis, diabetes, and sometimes occurs without any and sometimes occurs without any clear cause.

clear cause. The theory is that ARA 290 doesn't just that ARA 290 doesn't just dull the dull the burning sensation. It burning sensation. It can really help can really help repair damaged repair damaged nerve fibers.

nerve fibers. Diabetes adds another Diabetes adds another possibility. In one possibility. In one study, people with study, people with type 2 diabetes type 2 diabetes experienced improvements in experienced improvements in blood sugar and triglyceride levels along with a blood sugar and triglyceride levels along with a reduction in neuropathy symptoms, hinting at the hinting at the peptide’s ability to affect peptide’s ability to affect metabolism and metabolism and nerve repair nerve repair simultaneously. I also want to simultaneously. I also want to mention a list of mention a list of potential benefits potential benefits that research that research may confirm in may confirm in the future.

the future. Recovery from Recovery from brain injuries, recovery brain injuries, recovery from heart from heart attacks, chronic attacks, chronic fatigue, and fatigue, and nerve damage from nerve damage from chemotherapy. These ideas are chemotherapy. These ideas are mostly mostly mostly based on animal studies and animal studies and mechanisms of action, so mechanisms of action, so take them as take them as exciting exciting exciting prospects rather than as prospects rather than as available benefits available benefits today. I understand.

today. I understand. Choosing supplements can Choosing supplements can be exhausting. be exhausting. There are hundreds of There are hundreds of brands, conflicting brands, conflicting claims, and it's impossible claims, and it's impossible to understand what's to understand what's actually high-quality and what will actually high-quality and what will truly make a difference in truly make a difference in your health. That's your health. That's why I created Dr. Jones Supplement Store. Every Dr. Jones Supplement Store. Every product in the store product in the store for energy, for energy, gut health, gut health, sleep, sleep, sleep, hormone optimization, hormone optimization, recovery, and recovery, and more— more— has been personally reviewed, tested, and, tested, and recommended by me.

recommended by me. These are the exact formulas These are the exact formulas I use and I use and recommend to my recommend to my patients, friends, and patients, friends, and family. So go family. So go to drjoessupplements.com, to drjoessupplements.com, sign up for the sign up for the newsletter, and you'll newsletter, and you'll get 10% off get 10% off your first your first order. You will also order. You will also gain access to gain access to exclusive exclusive exclusive protocols and protocols and insights that I insights that I share only with my share only with my community. So let's community. So let's cut through the noise cut through the noise and choose what and choose what really works.

really works.

Clinical Trial Results Reviewed

So what does So what does current research show? current research show? The best results The best results came from came from the Netherlands. In 2012, the Netherlands. In 2012, 22 patients with 22 patients with sarcoidosis and sarcoidosis and small small small fiber neuropathy received ARA fiber neuropathy received ARA 290 intravenously 290 intravenously for 4 weeks and for 4 weeks and reported reported reported significant improvement in significant improvement in symptoms compared symptoms compared to placebo. And in 2013, to placebo. And in 2013, 38 patients 38 patients were given daily subcutaneous were given daily subcutaneous injections of ARA 290. After 28 injections of ARA 290. After 28 days, photographs of days, photographs of the surface of the eye the surface of the eye showed an increase in showed an increase in the number of nerve the number of nerve fibers, the patients fibers, the patients could walk could walk longer distances, and longer distances, and their symptoms their symptoms improved. The improved. The largest largest largest study in 2017 study in 2017 tested three tested three dosages in 64 dosages in 64 patients. And only patients. And only a dose of 4 mg per day a dose of 4 mg per day statistically significantly statistically significantly increased the area of increased the area of nerve fibers in the nerve fibers in the cornea.

cornea. cornea. Skin biopsy showed Skin biopsy showed more fibers in the more fibers in the healing process, healing process, and pain decreased in and pain decreased in all groups. And in all groups. And in study participants who study participants who started with moderate started with moderate to severe pain, the to severe pain, the mg group outperformed mg group outperformed placebo by a significant placebo by a significant margin, although it did margin, although it did not reach not reach statistical statistical statistical significance. In 48 people significance. In 48 people with painful with painful diabetic diabetic diabetic neuropathy, a 28-day neuropathy, a 28-day course of 4 mg improved course of 4 mg improved nerve symptoms, nerve symptoms, hemoglobin A1C, hemoglobin A1C, and triglyceride levels. And and triglyceride levels. And these changes persisted these changes persisted for a month after the for a month after the last dose. These last dose. These studies were studies were small and small and short-term, so short-term, so they best they best serve as a basis for serve as a basis for larger larger larger trials. Also trials. Also, just to be, just to be clear, ARA 290 is not clear, ARA 290 is not FDA-approved to FDA-approved to treat any treat any conditions, and it has never conditions, and it has never progressed beyond progressed beyond phase two phase two clinical clinical clinical trials. So nothing trials. So nothing we we we talk about today talk about today guarantees the purity, guarantees the purity, dosage, or dosage, or results of any results of any products products products sold under this sold under this name. Now regarding name.

Dosing Protocols From the Research

Now regarding dosage: here is what dosage: here is what was used in was used in those trials. In the those trials.

In the very first very first very first study, 2 mg was administered study, 2 mg was administered intravenously intravenously intravenously three times a week.

three times a week. After that, 4 mg 4 mg per day subcutaneously per day subcutaneously for 28 days was used in trials in sarcoidosis and diabetes. The for 28 days was used in trials in sarcoidosis and diabetes. The same dose same dose was used was used was used for 12 weeks in a for 12 weeks in a small small small eye study. In eye study. In those studies, 8 mg did those studies, 8 mg did not produce better not produce better results than 4 mg.

results than 4 mg.

Safety Profile and Contraindications

There are currently no There are currently no published data published data on repeat on repeat courses, so any courses, so any treatment beyond 12 treatment beyond 12 weeks is weeks is an assumption that an assumption that the clinician must the clinician must tailor to you tailor to you or the patient or the patient they are treating. What about they are treating. What about security?

security? security? No No serious serious safety issues were reported in the trials, and safety issues were reported in the trials, and eye testing did not eye testing did not detect antibodies to detect antibodies to the drug. A typical the drug. A typical complaint was mild complaint was mild redness or redness or discomfort at the discomfort at the injection site. The level of injection site. The level of erythrocytes did not increase erythrocytes did not increase significantly during the tests significantly during the tests.

.. One study One study reported a reported a fatal heart fatal heart attack and a case of attack and a case of worsening worsening worsening kidney function, but the researchers kidney function, but the researchers did not link these to did not link these to ARA 290.

ARA 290. The longest period The longest period of observation in of observation in humans was 12 humans was 12 weeks, so effects that effects that appear appear appear years later cannot be ruled out. There are no official contraindications at this time years later cannot be ruled out. There are no official contraindications at this time.

. There are only considerations There are only considerations based on based on the properties of the the properties of the the properties of the original hormone and the original hormone and the results of results of the patients studied. Therefore, the patients studied. Therefore, active cancer or active cancer or recent cancer is a recent cancer is a potential reason potential reason to avoid ARA 290, to avoid ARA 290, as there as there is a long-standing is a long-standing debate about EPO's debate about EPO's tumor growth. Unstable tumor growth. Unstable heart disease, a heart disease, a recent heart recent heart attack, or attack, or uncontrolled uncontrolled uncontrolled blood pressure blood pressure require require require consultation with consultation with consultation with a cardiologist before a cardiologist before you even you even consider it. And it consider it. And it should not be combined with anemia drugs such as EPO. And anemia drugs such as EPO.

How to Track Results on ARA-290

And pregnancy and pregnancy and breastfeeding, breastfeeding, breastfeeding, of course, have not been of course, have not been sufficiently studied. So what to do if. So what to do if you and your doctor you and your doctor are using ARA 290?

are using ARA 290? How do I know if it How do I know if it works? Therefore, works? Therefore, monitoring monitoring monitoring is established even before the is established even before the first dose. Now, just to be first dose. Now, just to be safe, there are safe, there are some basic tests some basic tests that I recommend you that I recommend you consider. This is a consider. This is a complete complete complete blood count, as well as blood count, as well as kidney and kidney and liver function. And for liver function. And for added benefit, I added benefit, I want to track want to track glycated glycated glycated hemoglobin, hemoglobin, hemoglobin, fasting glucose, and fasting glucose, and cholesterol levels, cholesterol levels, especially in patients especially in patients with diabetes. Regarding with diabetes. Regarding nerve pain, it is worth nerve pain, it is worth paying attention to paying

attention to the questionnaires on the questionnaires on pain and symptoms of pain and symptoms of small small small fiber neuropathy, as well as the 6- minute minute minute walk test. And if walk test. And if the clinic offers an the clinic offers an eye scan, eye scan, do it, because it do it, because it allows you to allows you to allows you to directly directly directly count nerve count nerve fibers. And you should fibers.

Who Is the Ideal Candidate

And you should get checked a get checked a month after month after completing the course, completing the course, as some changes as some changes in the tests in the tests persisted even persisted even after the last after the last injection. So, who is the injection. So, who is the best or best or ideal candidate ideal candidate for ARA 290? There for ARA 290? There is no direct answer to this, because, again,, because, again, the drug is not the drug is not FDA approved. But FDA approved. But the person who may the person who may benefit most benefit most from ARA 290 is from ARA 290 is someone with someone with confirmed confirmed confirmed small small small fiber neuropathy, fiber neuropathy, most likely due to most likely due to sarcoidosis or diabetes, sarcoidosis or diabetes, who is living with burning, who is living with burning, tingling, or tingling, or autonomic symptoms that have autonomic symptoms that have not been resolved with not been resolved with standard standard standard treatments. They have been treatments. They have been examined by a doctor, have examined by a doctor, have no history of no history of cancer, unstable cancer, unstable heart disease, are heart disease, are not pregnant, and have not pregnant, and have nerves left that nerves left that can be repaired.

can be repaired. Some people with Some people with type 2 diabetes and type 2 diabetes and early neuropathy early neuropathy may get an may get an additional additional additional metabolic bonus.

metabolic bonus. Frankly, I haven't Frankly, I haven't treated a large treated a large number of patients number of patients with with with small fiber neuropathy. I small fiber neuropathy. I treated one treated one patient and the patient and the results were results were amazing and I amazing and I used ARA 290 in used ARA 290 in patients with patients with common common common neuropathy along with neuropathy along with nutrition, diet, nutrition, diet, physical therapy, physical therapy, regenerative regenerative regenerative injections and anything that injections and anything that can help such can help such people. Again, people. Again, this is not a guarantee this is not a guarantee, but if, but if I see nerve pain, I see nerve pain, I think about ARA 290.

I think about ARA 290. Right now, healthy Right now, healthy adults seeking adults seeking rejuvenation, rejuvenation, rejuvenation, longevity, or longevity, or recovery, as well as recovery, as well as people with brain injuries, heart, heart disease, disease, disease, chronic fatigue—this is chronic fatigue—this is a question for a question for future research, and human clinical, and human clinical trials have trials have yet to yet to answer whether it will be answer whether it will be beneficial. So, if beneficial. So, if you have been living with you have been living with neuropathy, neuropathy, neuropathy, burning, burning, burning, tingling, or tingling, or nerve pain for years and have nerve pain for years and have been told that nothing will been told that nothing will help, the health of help, the health of your nerves may your nerves may be a key be a key piece of the puzzle that that that ARA 290 can help solve. It is ARA 290 can help solve. It is worth researching and worth researching and working with a working with a professional who professional who understands this understands this peptide. If peptide. If you found this analysis you found this analysis helpful, please helpful, please like it, subscribe for, subscribe for more more more science- science- science- based based based insights on insights on hormones, peptides, and hormones, peptides, and longevity medicine, longevity medicine, and don't forget to and don't forget to visit visit visit Dr.

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