

# BIOHACKERS

MAGAZINE

## BIOHACKING THE BODY'S INNATE ABILITY TO REPAIR

### EXCLUSIVE INTERVIEW WITH CHRISTIAN DRAPEAU

STEM CELL SCIENTIST, AUTHOR OF BESTSELLING BOOK "CRACKING THE STEM CELL CODE", INVENTOR OF BREAKTHROUGH STEMREGEN, PROMINENT SPEAKER, BIOHACKER

**THE BEST HEALING AVAILABLE:**  
TAPPING INTO THE NATURAL RELEASE OF STEM CELLS

**THE SCIENCE AND MIRACLES:**  
DISCOVER WHAT'S BEHIND ENDOGENOUS STEM CELL MOBILIZATION THERAPY

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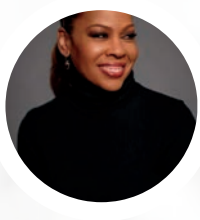


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# MESSAGES FROM OUR BIOHACKING TEAM



# A LETTER FROM THE EDITOR

## Believe that Anything is Possible

One day I was in the park with my daughter at a 3-year old's birthday party. Somewhere in between the chaotic bubble-blowing and the lively story shouting - telling, the birthday girl lost her balloon to the gentle grasp of the passing wind. As it slowly floated into the sky becoming smaller by the second, my 3-and-a-half-year-old daughter looked up at me and said "I can get it daddy." I chuckled at her for a moment saying something like, "I bet you can girl." In that moment, I was reminded at just how much kids really believe in themselves. They hardly see limits, at least at that age, partly because they are still discovering them. But for a kid to believe that they could just waltz right up to that balloon in the sky and bring it down to Earth is really remarkable. My daughter was not joking, as this was not the joking time or really the age. She told me with all sincerity that she could do it.

As adults living in this world full of messages designed to limit ourselves and our possibilities, we can really learn from this message and from the thinking of many children. Their imaginations are just about endless, and when supported, they believe they can do just about anything. Now its our jobs as adults to keep them safe so sometimes we do have to help them see the reality of the situation without shooting their beliefs out of the sky; but

when we look at our life through the lens of a child's eye, couldn't we see things much more optimistically and possibilities as that much more attainable? Maybe by first looking about with wonder and enthusiasm like a child, we can then pass these thoughts on to our adult mind for execution to the best of our ability and within the realms of reason.

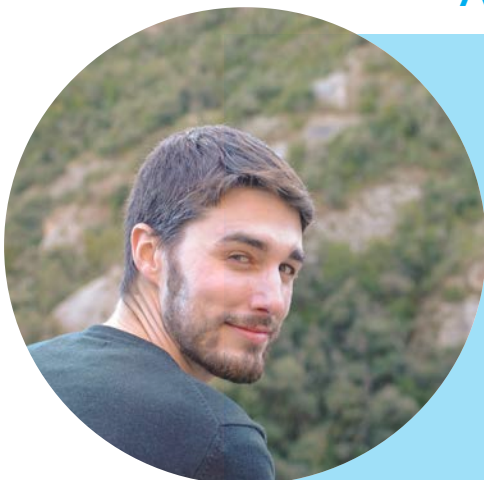
I'm not saying we remain a child forever, only that we continue to foster this child-like curiosity and belief in the impossible, to help our adult selves be reminded that we can do good things, amazing things, impossible-like things. And even if we do not achieve them, we become better people in the process. Biohacking in the fullest sense, is exactly this. Pushing our limits with the continual child-like hope and belief and then safely trying our ideas on our adult selves in order to become better people in all aspects of health. Remember that just because they are children, does not mean that we cannot learn from them. In many ways, children keep us young and fill us with joyous curiosity and optimism.

"We don't stop playing because we grow old; we grow old because we stop playing."

- George Bernard Shaw

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## About Dallas McClain



Born in the USA, Dallas is a passionate reader of theological and personal development books. He holds a bachelor's degree in Biological Sciences. Teaching English abroad, Dallas has been immersed in various cultures and backgrounds while making friends all over the world. He is a Catholic Christian and enjoys time outdoors while being a tennis enthusiast. He is the Co-founder and Editor of Biohackers Update Magazine. He is currently living in Orlando, Florida with his wife & children, where he enjoys writing, sports, and nature hikes in his free time.

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# A MESSAGE FROM COO JEAN FALLACARA

No need to say that I'm a fan of Artificial intelligence (AI). Let's admit that AI has the potential to revolutionize the field of biohacking and the future of life extension in several ways.

One major way AI can impact biohacking is by helping to identify new treatments and therapies. By analyzing large amounts of data and making connections that humans may not be able to see, AI algorithms can help to identify potential supplement or compounds targets for various diseases and conditions. AI can also help to personalize either medicinal or holistic treatments.

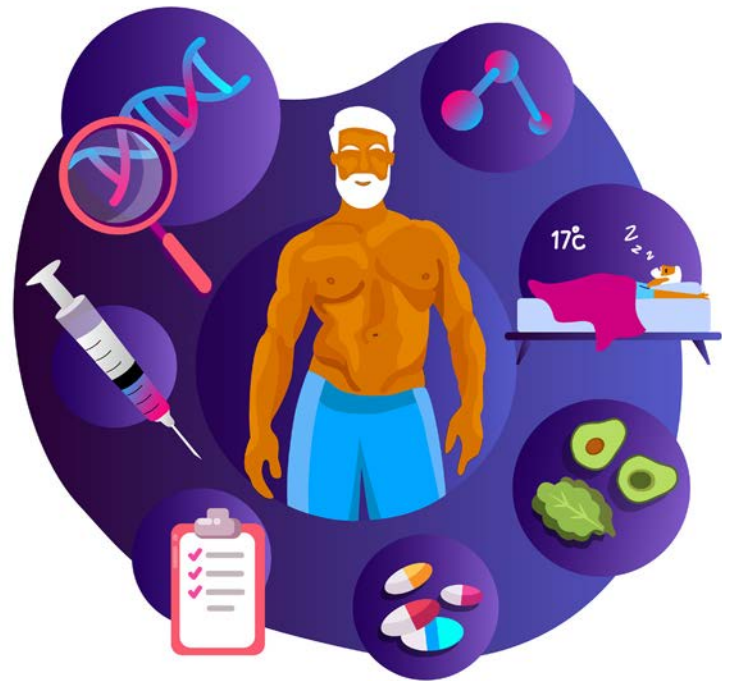
In terms of life extension, AI can play a role in predicting and preventing age-related diseases. By analyzing large amounts of health data, AI algorithms can identify patterns and risk factors for various diseases, allowing for early intervention and preventative measures.

Furthermore, AI can also help to extend healthy lifespans by enabling more personalized and effective treatments for age-related conditions. This can include everything from personalized nutrition and exercise plans to targeted gene therapies and anti-aging interventions.

Overall, AI has the potential to significantly impact biohacking and the future of life extension by accelerating the discovery of new treatments, personalizing medicine, and predicting and preventing age-related diseases.

However, it's important to note that ethical considerations and regulatory frameworks will need to be in place to ensure that these technologies are used safely and responsibly, and Biohackers Magazine has made it our mission to be part of the Authorities in this process...

Count on us!



## About Jean Fallacara



Known as Cyborggainz, born in France, Jean is an athlete, entrepreneur, scientist, public speaker and an Art collector. He is the founder and CEO of CyborgMedia, the Managing Director at inTEST Corporation and the COO of Biohackers Update Magazine. He is also the author of "Neuroscience Calisthenics: Hijack your Body Clock." Jean holds a bachelor's degree in biochemistry, a master's degree in immunology and genetics, and an engineering degree in biotechnology. He has also studied neurosciences and brain functionalities, and law and finances. Jean recently graduated from the MIT in XR-VR-MR. He is currently living in between Boston and Montreal after his biotech company was acquired by inTEST Corp (NYSE:INTT) in October 2021.

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# ARJUN'S STATEMENT

"We are what we eat."

It is actually not a bad starting point for your health. In fact, it might be the key to unlocking the door for a new dimension.

Whenever we talk about "Eating" and "Health", the conversation is almost always dominated by weight loss. If you go deeper, it will always conclude with a calorie deficit.

If you want to lose weight you need to consume fewer calories and burn more. While on the surface that is true, in the long run, it may not be such a good idea.

You see, weight loss should never be your prime objective. I am a pretty active individual yet I am a few points over my BMI, because of my bone density. So weight loss should not be the objective, maybe fat loss is what we want to go for.

Cultures around the world believed in eating parts of their vanquished enemies, as it was believed that it gave them the strength of their prey. It is something I believe too; carnivores and vegetarians have different types of energy, even if they have the same caloric count.

These energies will, in turn, manifest into different outputs. Carnivores energy levels are more explosive and absolutely great for people doing a lot of physical activity. Whereas vegetarian or vegan energy manifests more in

mental and spiritual activities.

It is not a competition of who performs better or who has the moral high ground, but a matter of well-being. You need to find a balance in your diet and be more conscious of what you are eating. Be thankful for what you have and above all, enjoy it.

But always remember, "Everything excess in life is poison".



## About Arjun Chauhan



Born in India, Arjun is the master of all trades, the Chief Marketing Officer of Biohackers Update Magazine and a soccer enthusiast. He holds a bachelor's in commerce and a Master's in Business administration, specializing in marketing and human resources. He has 6 years of experience in Content Marketing and is always looking forward to gaining more from life. With a passion towards nature, he is currently in the Foothills of Himalayas, in the northern part of India.



**OUTER**

***“We are all connected; To each other, biologically. To the earth, chemically. To the rest of the universe atomically.”***

***— Neil DeGrasse Tyson***



# BIOHACKING & OUR INNER GIANT



BIOHACKERS  
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What is our life, but a few seconds in the life of the universe?

And in these few seconds we seek happiness, health and success – just like Gollum sought the “magic ring”. Gollum - a character from the book and movies of J.J.R. Tolkien’s “Lord of the Rings”, once was a beautiful being, an innocent seeker. And he had this non-arrogant but curious biohacker mindset, which allowed him to leave his comfort zones and “to obsess over things like diving into deep pools and tunneling and burrowing into the earth” - how Jaron Pak (Looper) describes it.

Going beyond our comfort zones - that’s something which has to start in a biohackers mindset. We need to see a benefit beyond our comfort zone, otherwise we wouldn’t step into an ice bath or get up earlier for an uncomfortable morning routine.

What was it that went wrong for Gollum, and why was Gandalf - a supernatural being, always ready to help - the happier and more successful



“biohacker”? As babies we all had this attitude of a biohacker: we didn’t doubt our own path, our own feelings and we had no doubt that we could be the king or queen of our own world – any minute we decided to be just that. – And then many of us tried harder to blend into

groups and become socially acceptable than to follow our inner vision of greatness. In our teenage years for many of us being popular felt like the magic ring.

I swayed back and forth from wanting to fit in and wanting to hack my own greatness and be my true self. Later in life I was told that I was one of these strange kids who didn’t really fit in - and at the same time were secretly admired by other kids. My freaky-geeky super powers as a teenager were infinite curiosity, an interest in ecology, bats, photography, ancient cultures, the wilderness and to engage in the protection of farm animals – just to name a few.

Only many years later I learned that it wasn’t just me – but so many of us didn’t feel





the peace and bliss of true belonging. And so many of us still hide – consciously or unconsciously – parts of ourselves to fit in: at the workplace, within our family, or having a beer with old friends from school. To the effect that we become smaller because parts of our true nature are not allowed to be expressed and seen.

### Biohacking – a License for authentic Greatness

Just like kids and teens, many of us adults don't really fit in. Unconsciously or well aware, often we just try to "fake it until we make it". Biohacking is per se a path to greatness. Biohacking inspires us to seek the truth about our individual happiness and a fulfilled life inside of ourselves. In our own authentic potential.

Biohacking doesn't say: Play small to fit in. It says: Explore your greatness and sail to the unknown ends of the ocean of your potential - until you find the limit.

Gollum was a healthy being, in the pursuit for happiness – Before he put the magical ring on his finger! He could be playful, get into flow states, into the zone, in his daring to live a great life. But with the ring on his finger he became attached. Just like us when we didn't play basketball anymore just because we loved the feeling, to sweat in practice and then fly to the basket in the game or act like a pack of wolves with our own team – communicating without words, acting like an invisibly connected, unstoppable force. Well, if we started to play for our dads approval

or for the cute girl in the first row – if we got attached to outer validation of the innate greatness of our true being – we did our first steps on the Gollum-trail.

### Gandalf and our inner giant

This brings us right into the center of Biohacking: It's meant to make our life's better. Not just our body, but at the end of the day – the cosmic seconds – we just want to FEEL better inside our lives and inside of our skin, our bones, and our heart. Bio-Hacking is a very individual path, a lifestyle, a practice. – But it can never only be individual, because social science, neuroscience and psychology make it clear: Our physical health is intrinsically linked to our mental and emotional health as well as to our connection with others and even with the Divine





- however our understanding of the later is, as i.e. Sociologists Brene Brown or Martha Beck carved out. Gandalf was capable of performing great magic, great hacks but he also had a great heart and his vision of greatness included human-kind and even the earth. That's the magic potion for personal happiness, success and health: A vision that goes beyond our small individual interests. A focus on great intentions instead of attachment to symbols and magic rings.

#### Find your pack in an ice bath

As a Wim Hof Instructor, I guide people safely through ice baths. 250 Percent more Dopamine - that's how their nervous and hormonal system responds. Their psyche gets uplifted and the ego's nagging voice melts together with tons of ice cubes. Within a few workshop hours strangers start to feel and behave like a pack, like a family - or even better than many families on holidays.

#### Biohackers: Elite or Archetype?

Are Biohackers part of an elite, as they aim to be high performers? High performers in physical and mental health and some even in spirituality. Or is everyone who thrives in a special aspect of their health, who deliberately and successfully hacks their own health a biohacker?

I like to believe that we have

biohacking genes inside each of us. Archetypal psychology leads me to feel that each of us contains a sleeping giant - a sleeping biohacker inside of us. Just like famous German Psychologist Carl Gustav Jung or the American Jungian Psychoanalyst Clarissa Pinkola Estés explain: We are not one homogenous human being but a being made of a precious tapestry of different archetypes, just like an internal family or team.

#### Our inner scientist, alchemist & magician

Our inner Gandalf brings Biohacker qualities into the picture. He is the scientist, alchemist and magician of his world - interested in what happens underneath the surface of life and how he can "hack" and influence life in the most beneficial way. He is a benevolent hacker, curious and brave. Who could scare Gandalf away from knowledge or wisdom? What comfort zone could keep him from helping with his magic, when his pack or his people needed him? This is one of the biohackers' qualities that might be dormant inside of us: The curiosity to investigate our own biology and the potential of our physical, mental and emotional strength. Gandalfian benevolence and responsibility may lead us to develop potential which will grow and blossom not only for our own good but for a greater good - involving other human beings and even the rest of nature and all living beings.



## ABOUT WIEBKE DIRKS



*Wiebke designs biohacking projects - with a focus on Natural Biohacking - like the Biohacking Days Stuttgart or Biohacking Bad Dür rheim in the German Black Forest region. During her master studies in ecology and geobotanics she has been living in two worlds: Modern Science and Ancient Wisdom about nature, stress management and resilience. Wiebke: "For the healing and stability of our inner ecosystem of body, mind and emotions we can learn a lot from outer ecosystems. And our inner and outer world are intimately connected - not only through the oxygen and carbondioxide we exchange in every minute with trees and other green plants." The German biohacker has created her own unique methods for stress management and resilience to thrive in our modern stressed out civilisation. Wiebke has been working as a business trainer and life coach for more than 20 years, as "The Work of Byron Katie" Coach and since 2022 also as a Certified Wim Hof Instructor - after an international career in the the fields of journalism, communication and marketing. For example for Friends of the Earth Germany. In the German "Duale Hochschule" academy Wiebke has been teaching methods of scientific work and she still loves to combine the latest science with ancient wisdom to create unique talks, articles, workshops and retreats. Her mission: To connect people to their inner ecosystem and the wild outer ecosystems for a peaceful future for humans and the whole planet.*



# LOW- PERFORMANCE EPIDEMIC



**A**re you ready to hear about the silent epidemic that's sweeping the world? No, it's not a specific disease (although that hasn't helped matters). It's the epidemic of low cognitive performance and productivity among highly qualified professionals.

That's right, even the smartest, most accomplished people are struggling to stay focused, motivated, and productive. And it's not just because of the distractions of modern life or the endless stream of meetings. There's a deeper issue at play: our psychiatry.

You see, our mindset, cognition, and emotional control are all directly connected to our physical and mental health. And if we don't address the underlying physiological issues, all the mindset coaching in the world isn't going to help.

Now, before you start thinking that this is some kind of conspiracy theory, let me assure you that there's plenty of scientific evidence to back up my claims. For example, studies have shown that chronic stress can lead to inflammation in the brain, which in turn can impair cognitive function. Other research has found that poor sleep quality can negatively impact memory and executive function. And let's not forget about the impact of poor nutrition on our overall health, including our cognitive abilities.

So what's the solution? Well, the common approach of the last 30 years is to improve performance through productivity hacking and mindset coaching. But as we've established, that's not enough. We need to take a holistic approach and address the underlying physiological issues. And that's where biohacking comes in.

Biohacking is the process of using science and technology to optimize your physical and mental performance. And the

good news is, it doesn't have to be complicated or expensive. Sure, there is plenty of technology to induce different states of focus in our brain, for example. However, most should start with the basics.

Here are a few easy ways to use biohacking to improve your cognitive performance:

- Get more sleep: Aim for 7-9 hours of high-quality sleep each night. This can help reduce inflammation in the brain and improve cognitive function.



- Eat a nutrient-dense diet: Make sure you're getting plenty of fruits, vegetables, and healthy fats. This can help reduce inflammation and provide your brain with the nutrients it needs to function at its best.

- Practice mindfulness: Meditation and mindfulness practices can help reduce stress and improve cognitive function.

- Exercise regularly: Regular physical activity can improve brain function and reduce the risk of cognitive decline.

- Supplementation: Certain supplements like Omega 3 , Ginkgo biloba , Bacopa monnieri , Phosphatidylserine , L-theanine , and Vitamin D can help improve cognitive function and reduce inflammation.

Of course, these are just a few very simple examples, and everyone's needs will be different. The key is to focus on the true cause of the performance issues. Only after optimizing your physiology will all the mindset and productivity-hacking coaching start producing the results we want.

Biohacking is a powerful tool that can help us do just that, and it doesn't have to be complicated or expensive. So don't let this silent epidemic hold you back any longer. Start taking control of your cognitive performance today.



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## About Kevin Aventura



*Kevin Aventura is an author, entrepreneur, and high performance coach. He is most well known for working with top professionals to help them unlock their peak performance and grow their business. Growing up, he always felt like no matter what he did, his less-than-optimal health never allowed him to achieve the best version of himself. This was the reason he obtained his physical therapy degree and pursued further studies in naturopathy and high performance coaching. Kevin believes that everyone deserves to feel like the superhero they were designed to be.*

<https://neohacker.co/>  
<https://www.instagram.com/kevin.aventura/>



# BREATHE

TRIGGER THE TENSION, FEEL THE RELEASE



Every ache and stiffness throughout my body has prompted me to desire a change of lifestyle, to feel better again. Was this feeling a result from the autoimmune disease or did it come from the poor posture that builds up overtime? Or maybe it was because of all the daily tasks that contributed to stress, inflammation and a lack of mobility among other symptoms. Overtime I noticed the negative impact this had on my body and emotional well-being. Dysfunction transferred over to my lifestyle and social life. Being a full-time mom, travel desires or just to survive one day became hard enough. With that said a need drove me closer to discovering something new.

Let me take you into one day at the spa with me. Transport yourself into an environment in which from the moment you walk into the spa, the relaxing aromas from the atmosphere surround you. As you are in the waiting room the lights are dimmed to promote a calming yet soothing vibe. Natural herbal tea bags from different ingredients awaits you. As you pour water over the tea bag you begin to already accept that you are in a relaxed state of mind. You are eagerly looking forward to that facial or massage you signed up for.

As I enter the room within minutes I transport my mind to embrace the scenery. While the massage table is right in the middle of the room it draws me in just enough that I



can't wait to be lying on it. The massage therapist asks, what are you seeking for today? Are you wanting a Swedish massage, Deep tissue, Sports massage therapy or Trigger point massage therapy? With so many options to choose from, however, my main focus was to explain my symptoms and let the professional guide me on what was best for the outcome I desperately wanted. I asked for a massage that would help me with stiffness, lack of mobility, to improve circulation, decrease inflammation and improve sleep patterns.

Lying face down, aromas of both eucalyptus and lavender essential oils surround me. While eucalyptus works to clear airways and mental fog, the lavender helps with promoting relaxation and relieves anxiety. I begin to practice deep breathing as I take



slow and deep breaths in and out, as this alone is known to enhance all types of massages. Oftentimes people call it abdominal breathing or belly breathing. This type of breathing is known to promote blood flow throughout the body, increase the effectiveness of the lymphatic system and support organ detoxification.

While the massage therapist



begins around my back and shoulders I can feel penetrating tension in some areas. In discovering such therapy all it took was to ask questions. Knowledge came from asking my therapist why you are making certain movements. They replied that they could feel knots throughout my muscles and that these movements are to help alleviate the discomfort and pain. These answers got me closer to understanding such therapy and how there are many different massages, all offering different outcomes.

A largely influential one, I discovered Trigger point massage therapy. All I can say is that you will be amazed by all that it offers, and it is a perfect add on to your list of Self-Care routines checklist. On that note while trigger point thera-

py can be effective pain treatment, it's highly important to remember that it isn't a cure. Nor should you stop taking prescribed medication unless you speak to a medical professional and are given approval to do so.

Trigger Point Massage Therapy Benefits:

- Improved Circulation.
- Reduced Tension and Stress.
- Improved Mobility and Flexibility.
- Increased Energy Levels.
- Better Sleep.
- Relief From Headache Pain.
- Improve Posture.
- Better Warm Up Before Workouts.
- Reduce Muscle Soreness after Workouts.
- Calming Effect on our Nervous System.

### A Disadvantage of Trigger Point Massage Therapy:

You may feel Sore the next day which is normal considering the massage therapist worked on muscles that were tight but with a warm compress you can help alleviate the discomfort as your body internally goes through changes and adapts to a release and gains strength along with mobility. Epsom salt baths could also be a natural remedy to help those sore and achy muscles relax. It's only fair to say that your body just wants to repair itself and needs time to do so. With that said Hydration is super important, drink lots of water before and after. Everyone will experience such therapy in their own way. Researching and understanding the pros and cons of trigger point massage therapy could help you determine if such therapy is right for you. Remember medical professionals can guide you as well.







What is Trigger point Massage Therapy:

Trigger points are small knots that form in your muscles and cause pain and discomfort. They can even cause shortness of breath. These trigger points cause pain even when you are not using your muscles.

Finding this out helped me tremendously understand my body.

Trigger Point Massage Therapy has been known to be an effective therapy and helps with different types of pain. Seeking medical advice before exploring such therapy is highly important. Such therapy may not be suitable for everyone. This therapy provides a variety of benefits, for those like myself who seek alternative ways to help cope with pain here's what I have discovered.

Improved Circulation, being just one of many benefits, is a winner for me. Let's take a further look. When muscles are tight, it is known that they

may restrict blood flow. This is known to cause other sets of problems such as dizziness, fatigue and headaches. This type of therapy releases such tightness in the muscles effectively improving circulation.

Trigger Point Massage Therapy helps our muscles overtime release in such a way that you can experience a more relaxed state throughout your body, and I think we can all agree that this benefit alone is rewarding enough. Improving mobility and flexibility was essential for me to survive just one day in my life full of extracurricular activities with the kiddos and endure the harsh obstacles you face as a working mom of two. Juggling everything would build up all this tension. By maintaining my composure, I was led to recognize that my body needed a release; so I began to seek.

Remember this, when you seek you shall find. An equation that has marked my life

for good. I was determined to find alternatives and was happy to find that this world is full of such great therapies. It all starts from having a need once you discover this, then your homework begins.

Laziness and increased naps were added to my agenda. Even after my many naps, I was still so sore and tired along with aches and pains. I understand now that tight muscles can take away the little energy you have left. It was such a remarkable discovery to come to know and experience trigger point massage therapy and how it helps release muscles and increase our energy levels.

The benefit of a better sleep, now that was a win-win for me! I love my sleep and seeing how much I tossed and turned from discomfort, implementing a therapy that would help alleviate the pain and promote a restful night's rest was attracting all on its own. The difficulty of falling asleep and

staying asleep while you look over to your side and see your partner in a restful state had me craving just that. At the end of the day, this therapy worked for me.

As a writer who spends a good amount of my time in front of a computer, this posture could have been the cause of tight muscles in the head and neck. This therapy helps release muscles of the head and neck pain. Such therapy takes it to another level by promoting calmness to your nervous system. This therapy can also help someone who suffers from plantar fasciitis. Movements in which the therapist does to the foot can help release the tight muscles and alleviate some of the pain caused by plantar fasciitis.

Once the massage was over and it was time for me to get up from the massage table, my mobility felt loosened from the tension I had originally walked in with. I felt like a new woman, ready to conquer the world. Not only did it help my body but it also gave me a boost of confidence.

As I always say, if something is not working, that only becomes your motivation for you to go out and seek alternatives doing this as you use the skill called process of elimination. Don't lose hope as this world has so much to offer. It's amazing to see that although we have so many alternative solutions around the Holistic approach to a Healthier Lifestyle, there are people that do not know that these options exist. That's why I have made it my mission to share my experiences with all of you. Never give up when life throws obstacles in your way; embrace them, learn from your mistakes, be ready to accept changes and adapt to them if necessary and acquire knowledge as you walk in it.

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<https://www.eastwestcollege.com/massage-therapy-modalities-trigger-point-therapy/>





## About Whitney Minnelli Ferrer



*Born in Puerto Rico, Whitney is a passionate writer centering around the holistic approach to healthy living. She is the founder of the blog, IAmJuicingWithPurpose.com. In the beginning she didn't have much knowledge but was determined to learn and survive harsh obstacles she faced along the way of her wellness journey. She recognized one day that life is too short and precious to let it just go to waste and allow the illness to take over without a fight. Although not a Doctor nor a Nutritionist, her mission & purpose is to inspire and encourage others; reminding them that they are not alone and that we all have been given such gifts and talents and are put through tests that in the long run make us stronger. We all bring something of meaning to this world. She is spiritual, loves to sing gospel music and enjoys family time along with nature in her free time. She has made it her mission to share all the knowledge she has learned along the way and how she overcame her illnesses with courage and persistence.*

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Through unique light and sound compositions you can free your hidden brain potentials. We call it Lucid Microdosing™, its digital and totally awesome.

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A large, transparent, spherical water globe floats in a river. Inside the globe, a person is seen from the back, performing a handstand. The person's legs are spread wide, and their feet are pressed against the inner surface of the globe. The water inside the globe is splashing around the person. The globe is positioned in the middle of the river, with a rocky bank on the right and a grassy bank on the left. The sky is blue with some white clouds. The entire image has a cyan/blue color cast.

*“One who looks around  
him is intelligent, one  
who looks within him is  
wise.”*

*— Matshona Dhliwayo*

INNER

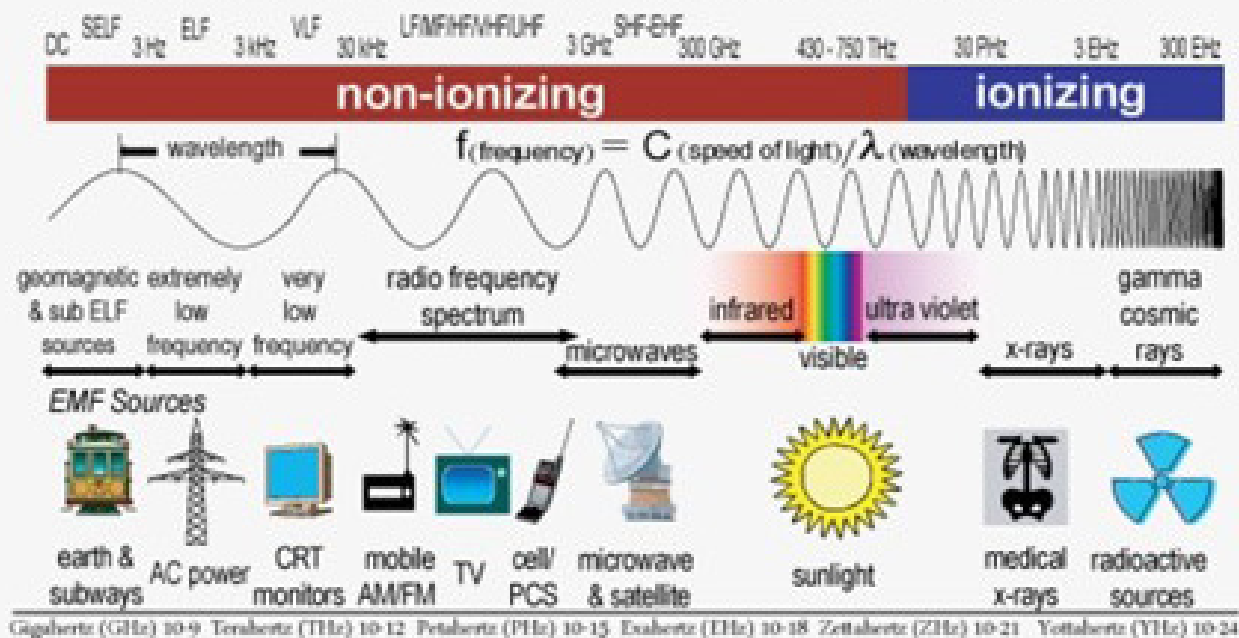


**5G AND  
OTHER  
SOURCES  
OF EMFS**

**WHAT TO  
DO?**



# THE ELECTROMAGNETIC SPECTRUM



Take some time to look around you for sources of EMFs (electromagnetic frequencies). There are cell towers that are “disguised” as trees, some are placed on telephone poles outside your home, others are on school or agricultural property, on top of hotels, and surrounding office buildings. We are immersed in an ocean of EMFs, whether or not we’re carrying our cell phone in our pocket.

Humans are bioelectric beings. Humans are adapted to EMFs that are formed by nature, like those from the sun. Our hearts and brains are regulated with bioelectric signals, and our cells communicate with electromagnetic impulses. When we are

surrounded by man-made electromagnetic fields from technology, our cell metabolism and biological functions are disrupted.

Electric and magnetic fields join as one field in most forms of non-ionizing radiation, resulting in an electromagnetic field (EMF). EMFs are produced whenever a piece of electrical equipment is in use. People are exposed daily to a range of intensity on the spectrum of EMF.

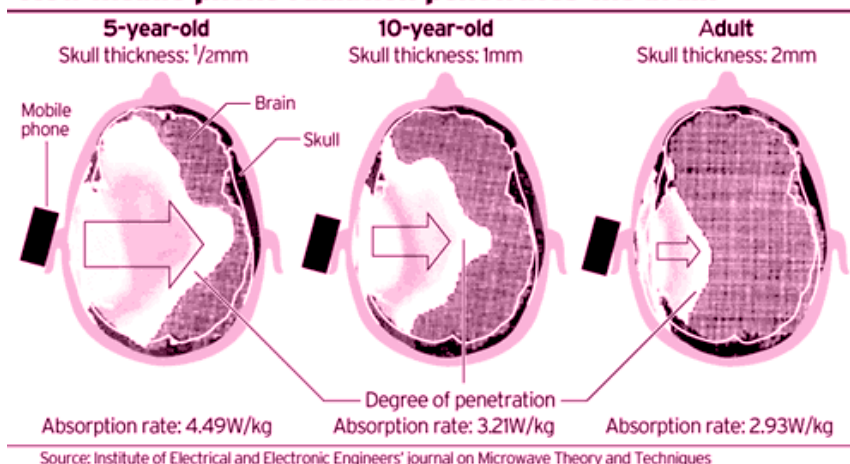
- Higher-frequency EMFs are in the ionizing radiation part of the electromagnetic spectrum and can damage DNA or cells on the atomic level which may contribute to genetic mutations and cancer. Examples

include sunlight, X-rays, and gamma rays.

- Low-to mid-frequency EMFs are in the non-ionizing radiation part of the electromagnetic spectrum. Sources include electric power lines and transformers, appliances, radio waves, microwaves, cell phones, wireless internet (Wi-Fi), cell towers, satellites, DECT phones (cordless), smart meters, smart appliances and watches, wireless security systems, cell towers, satellite dishes, routers, baby monitors, medical equipment, dirty electricity from wiring, global grid lines, laptops, fluorescent and halogen lightbulbs, etc.



## How mobile phone radiation penetrates the brain



Our exposure to this low-to-mid range of EMFs has increased dramatically over the last few decades. Since non-ionizing radiation does not create a heating effect, it was deemed safe and considered to have no effect on human tissue. This limited perspective has allowed the massive underrating of the potential for biological harm from EMF exposure and is the basis on which current safety recommendations have been made for cell phone and device usage.

The Specific Absorption Rate (SAR) refers to the rate at which radiofrequency energy is absorbed by human tissue. The FCC set the SAR safety standards in 1996, when cell phones operated on 2G technology. They modeled their tests based on the average adult male's skull size and thickness and only tested short-term exposure. The heads of the average woman and child are significantly smaller and therefore absorb EMFs more quickly and deeper into the body. We are now constantly

exposed to EMFs on a long-term basis, and 5G is quickly being implemented around the country. These 5G waves are shorter, therefore more miniature cellular towers that transmit short-range radio signals must be installed so that the wave signals can penetrate walls. In many instances, small cells will need to be deployed widely across cities to support 5G connectivity, transmitting and receiving signals from locations such as streetlights, street signs, homes, vehicles, and businesses.

Though the FCC has not publicly recognized it, scientists around the world have been studying the effects of EMF exposure on human health. Brussels, Belgium was the first city to halt the implementation of 5G due to radiation standards and a lack of scientific evidence that proves this technology is safe. France banned Wi-Fi in elementary schools about 8 years ago. German, Spanish, and Russian governments also have recom-

mendations to ban Wi-Fi from schools due to potential health challenges. The non-profit organization Children's Health Defense Fund has sued the FCC for failure to look at 11,000 studies that demonstrate adverse health effects caused by non-thermal, non-ionizing radiation from cell phones and other EMF sources. Awareness and advocacy for this issue continues to grow despite the politicized and disparaging rhetoric often used in the public sphere.

"Children's Health Defense (CHD) and eight nonprofits



on March 15, 2023 filed an amicus brief in support of plaintiffs in a lawsuit against Apple. The plaintiffs are asking the U.S. Supreme Court to decide if the Federal Communication Commission's (FCC) cellphone radiation guidelines preempt state safety and health laws.

According to the plaintiffs, this question has been "left unresolved for more than a decade" – allowing telecommunication companies like Apple to avoid facing personal injury claims from cellphone users who allege the company violated state health and safety law by failing to inform consumers of the health risks associated with the radiofrequency (RF) radiation emitted by the phones.

'The telecom equipment industry, just like Big Pharma, thinks it should be free to inflict great harm on individuals and then force taxpayers and the rest of society to bear the cost,' said Mary Holland, Children's Health Defense president and general counsel."

<https://childrenshealthdefense.org/defender/chd-supreme-court-apple-cell-phone-radiation/>

EMF exposure and sensitivity have been linked to insomnia, stress, anxiety, declining mental functioning or "brain fog", infertility, headaches, tinnitus, heart palpitations, arrhythmia, fatigue, cancer, vertigo, digestive issues, depression, skin disorders, lower immunity, neurodegenerative disor-

ders, and more. Age, duration of exposure, intensity of exposure, and other associated factors play a major role in the manifestation of these symptoms. The longer the length of exposure, the longer the body takes to recover after the stress of exposure is removed.

Though EMFs may be unavoidable for those not living in the depths of an old-growth forest, there are some things we can do to reduce our daily exposure.

- Move farther away from a source. Exposure rapidly decreases as distance from the source increases.

- Use speakerphone or corded (air tube) headphones when speaking on your cell phone

- Do not keep devices near you while sleeping

- Turn devices off. Devices like those that rely on Wi-Fi, such as cell phones, laptops, and Wi-Fi routers, are sources of EMF even when not in use.

- Switch your cell phone to airplane mode

- Limit use - reduce the number or length of calls, reduce amount of time spent on devices

- Do not wear or carry your cell phone on your body (for example - in pants pocket or bra)

- Move your clock radio away from the bed

- Turn your router off







when you sleep (you can buy a timer to do this every night)

- Text instead of putting the phone to your head.

- Consider implementing a heavy metal detoxification program

- Ask your naturopath about zeolites or silica for heavy metal detox

- See a biological dentist for amalgam filling removal

- Hardwire your phones, TVs, computers, and security systems, etc.

- Remove satellite dishes from the home

- Remove DECT (cordless) phones from the home

- Buy appliances that do not have Wi-Fi - no smart appliances!

- If your child is using a tablet, download the information you want them to have (show or movie) and then put it in airplane mode when they are using it

- Do not give children a cell phone until they in high school or the size of an average adult

- Keep cell phones out of the bedroom at night

- Infrared saunas and sweating help to decrease heavy metal toxicity in the body

- If you are very sensitive, turn the breaker off to your room at night

- Take scheduled breaks from your devices every hour

- Walk outside in nature - ground yourself by placing your bare feet on the earth

- Use a scientifically proven EMF protection. There are a lot of devices on the market. Look for a technological solution.

If you or a loved one is experiencing side effects from ever-increasing exposure to EMFs, consider investing in your health with an EMF protection device. In the meantime, take any small step you can to reduce your exposure and take charge of your health. Even if you aren't experiencing noticeable effects, your body is being affected by the all the EMFs in our environment.



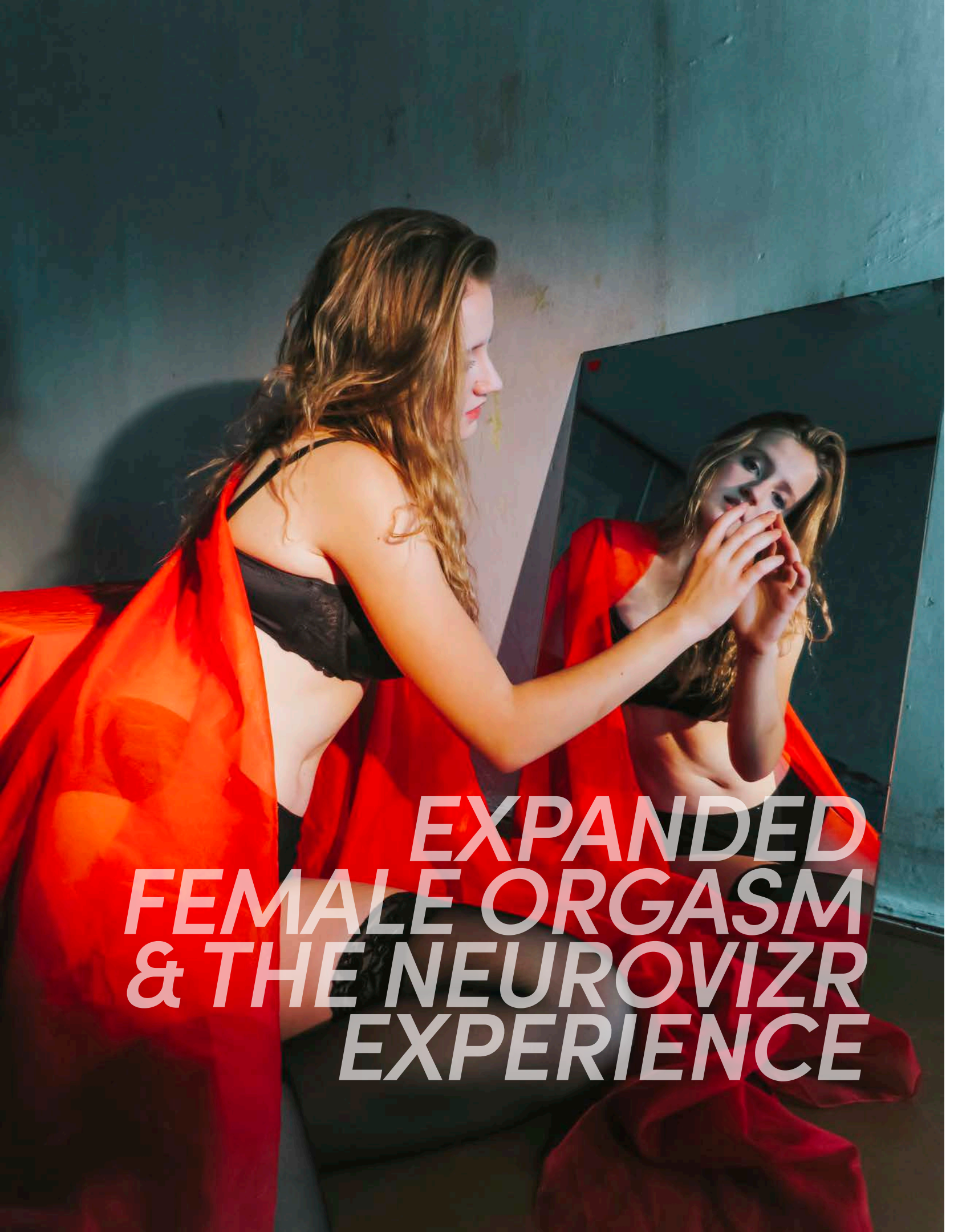


## About Kate Wagner



*Kate is a neurodevelopmental kinesiologist who specializes in Blomberg Rhythmic Movement Training® (BRMT), Brain Gym®, bioresonance using the Rayonex PS10, and EMF protection using VIVOBASE. She is an international instructor and Director of BRMT USA responsible for training all instructors and consultants in the USA, Brazil and South Korea. BRMT is a cause-oriented approach using primitive reflex integration, bioresonance, supplements, heavy metal detox and EMF protection to address the causes of chronic conditions, learning and behavior challenges, postural imbalances, pain resolution, coordination, reading and vision issues. She teaches these techniques to parents, teachers, allied health care professionals and those interested in taking charge of their health. She teaches online and in-person courses, provides private courses for schools and clinics and accepts clients for private consultations.*

<https://retrainthebrain.org/>



**EXPANDED  
FEMALE ORGASM  
& THE NEUROVIZR  
EXPERIENCE**

## PROLOGUE:

"I cover my eyes...relax...surrender to the experience in all ways physical, emotional, spiritual and mental...and continue to allow the dazzling starbursts to emanate from some central source within, without flinching or turning away, or seeking a way. During Expanded Orgasms, I frequently "see" internally-generated sources of light. For me, these lights are images that almost universally appear as stars bursting from a central source, and exploding into a periphery of my vision. Their color may be white, blue, bluish white, purple or a rainbow of colors. These inner lights may be so intense that I instinctively cover my outer eyes with my hands; the light appears blindingly. It's not, of course. It's just very, very bright. I find myself gazing into infinity. I can feel the starburst through my body, going both into my deepest core, and out into the universe." (Dr. Patricia Taylor, Expanded Orgasm, 2000).

## THE BASIC MESSAGE:

Women are naturally capable of a wide range of very positive sexual experiences that in contemporary Life Sciences are called the Expanded Sexual Response (ESR) and/or the Expanded Orgasm (EO). It is highly probable that the NeuroVIZR Experience may be able to support and enable women to attain ESR/EO experiences because of a shared physiological response dynamic here known as Cross-Reference and Cross-Reinforcement (CR/CR).

## INTRODUCTION:

The NeuroVIZR Experience is opening the doors to many unexpected avenues of discovery. The premise of a "First Language" creates a matrix with which other unique aspects of consciousness can unite into a special domain known as "Neuro Reality".

One such discovery involves the human sexual experience with a focus on the female orgasm. Female sexuality and female biology in general have always lagged behind in science. The subjects have been shrouded in bias to the point of bigoted ignorance. It has not been until now in the 21st century that the feminine perspective is finally getting the respect and attention it has long deserved.

One entirely engaging new area of interest and research in the Life Sciences has been labeled the "Expanded Sexual Response" or ESR. Closely linked to ESR is the term "Expanded Orgasm" or EO. Although encompassing both the male and female experiences, the primary focus is most certainly the female aspect. It appears that the female human is uniquely designed with the potential of both a broad and deep range of subjective experiences in her sexuality that are directly associated with her orgasm.

This article aims to explore the probable relationship between the NeuroVIZR Experience, and specifically VIZR Visions, with the subjective qualities of the female ESR/EO. Furthermore, there will also be some attention given







to the subjective visual experiences common to psychedelic hallucinogens as increasing evidence of an archaic First Language which is naturally present in the human neurochemical systems as functioning "organic codes" of communication between all planetary living organisms.

#### **EXPANDED SEXUAL RESPONSE (ESR):**

Expanded Sexual Response (ESR) is a recently defined phenomenon. It is defined as "being able to attain long lasting and/or prolonged and/or multiple and/or sustained orgasms and/or status orgasms that lasted longer and more intense than the classical orgasm patterns in the

literature". (Altered States of Consciousness Occurring During Expanded Sexual Response in Human Female; Sayin, H.U., NeuroQuantology; Dec. 2011; Vol 9, Issue 4).

Although the subject of ESR/EO is now receiving attention in contemporary Western Life Sciences, there has long existed an earlier set of similar understandings in Eastern, Chinese Taoist, Indian and Tantric literature.

A list of possible subjective experiences includes: depersonalization or disappearance of "self", out of body experiences, flying, ecstasy, rapture, explosion feeling, quivering, earthquake feeling, flooding, absorbing, spurting, blessedness, shuddering, in-

tense love, unreal, and surreal to name just a few. Furthermore, there are also common reports of VIZR Vision-like experiences such as: seeing light flashes, color flashes, geometric shapes, figures, unearthly colors and multi-dimensional planes. (Ibid, Sayin).

#### **EXPANDED ORGASM - THE PHYSIOLOGY:**

There is only a sketch possible at this time that begins to explain the psychophysiology of the Expanded Female Orgasm. Some educated guesswork postulates a combination of abruptly released neurotransmitters in certain parts of the brain combined with the activation and/or deactivation of

different parts of the brain.

More conventional research focusing on a "classic" orgasm lasting perhaps less than 10 seconds and of "average" intensity recognizes the release of dopamine, serotonin, norepinephrine and endogenous opioid peptides. These molecules are known to induce changes in mood and consciousness however they cannot alone be considered having the capacity to induce and sustain the prominent and prolonged characteristics found in ESR/EO.

Curiously, in some experiments involving the applied neurology of ESR/EO in women, it was found that certain brain regions actually "switched off". This deactivation appeared in the left Pre-Frontal Cortex (PFC) while numerous other areas in the brain were either increasing in activity or also decreasing. The overall impression is of a highly complex coordination of neurological controls that occur simultaneously with complex biochemistry. Simply put, there is really no clear understanding in current medical science of what happens during an ESR/EO.

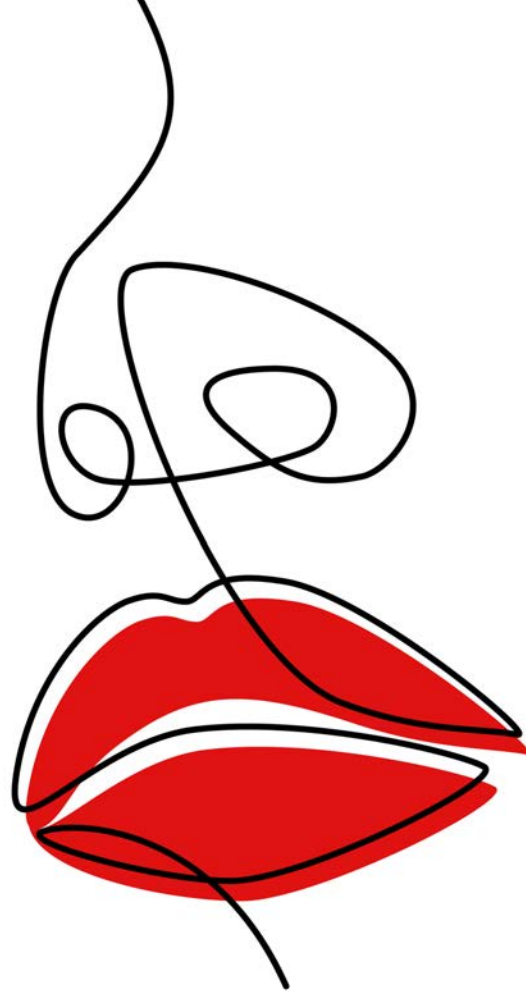
#### **THE FOUR NERVE - SIX PATHWAY THEORY OF FEMALE ORGASM:**

Past scientific research regarding the female orgasm using fMRI, MR and PET technologies focused on methods specifically involving just clitoral stimulation. The first attempts to broaden this restricted approach occurred in the 1980's with theory of

the "blended orgasm" that recognized the more complex mechanisms involved in the range of female orgasm experiences. Current theories recognize variations in orgasms with multiple mechanisms: pudendal nerve, pelvic nerve, hypogastric nerve, and vagus nerve pathways along with two oxytocin neurotransmitter pathways. A

somewhat combined mechanistic theory explaining ESR/EO is that a number of these pathways combine in some unpredictable fashion engaging many brain areas and neurotransmitter systems to create a sustained "rollercoaster" orgasmic event that varies in qualities and extends over time.





### A LONG WAY FROM MASTERS AND JOHNSON:

The 1960's undoubtedly ushered in a sexual revolution in the West with radical shifts in attitudes combined with "The Pill". The then very controversial research team of Masters and Johnson boldly lead the way into the bodies and bedrooms of America with their "first ever" brand of sexual research using consenting adults. This early research gave credibility to attempts to better understand the sexual experience while also cementing some strongly restrictive concepts regarding the female orgasm. Their position was that the clitoris was the prime source of female orgasm while rejecting the idea of a vaginal orgasm. (Masters W, Johnson V., Hu-

man Sexual response, Boston: Little Brown Company, 1966). It was not until 1982 and the publishing of the now famous "G-Spot" book that new vistas on the female orgasm began to dawn. These days it is possible to refer to the A-Spot, O-Spot, Cervix and Pelvic Floor Muscles (PFM), Nipples and even the "Brain Orgasm" as better understanding of the female orgasm constantly advances. (Doors of Female Orgasmic Consciousness; Sayin, H.U.; NeuroQuantology, Dec 2012, Vol 10, Issue 4).

### QUALITIES OF AN EXPANDED ORGASM:

Combining the findings of many researchers, it is possible to assemble a list of qualities and characteristics of the ESR/EO:

- The duration of single orgasms in the orgasmic train may increase:
- The duration of the whole orgasmic experience may increase, such as lasting tens of minutes to a couple of hours;
- The intensity of the individual minor orgasms generally increases along with the length of the orgasmic train;
- The number of minor orgasms in the orgasmic train may be beyond the normal and average orgasmic pattern, such as exceeding 20-30 orgasms in tens of minutes;
- The pleasure taken and sexual relief is reported to be much more compared to single or a couple of multiple orgasms;
- Without a refractory period, a new orgasmic state commences after each orgasm, without passing to a resolution phase, while orgasmic consciousness is maintained for a long time (e.g. from a couple of minutes to tens of minutes or hours);
- Although there may be some forms of Altered States of Consciousness (ASC) in some single orgasms of some women (Non-Expanded Sexual Response or NESR women), most ESR and EO orgasms are accompanied with ASCs, whereas time perception, space-time continuum maybe deeply altered;
- As reported by many ESR/EO women, ESR orgasms seem to have anxiolytic, anti-depressant, euphoric, myorelaxant, sedating, analgesic, acute and short acting hallucinogenic effects. (Doors of Female Orgasmic Consciousness; Sayin,



H.U.; NeuroQuantology, Dec 2012, Vol 10, Issue 4).

### **DO PSYCHEDELICS HAVE A RELATIONSHIP TO THE EXPANDED FEMALE ORGASM?**

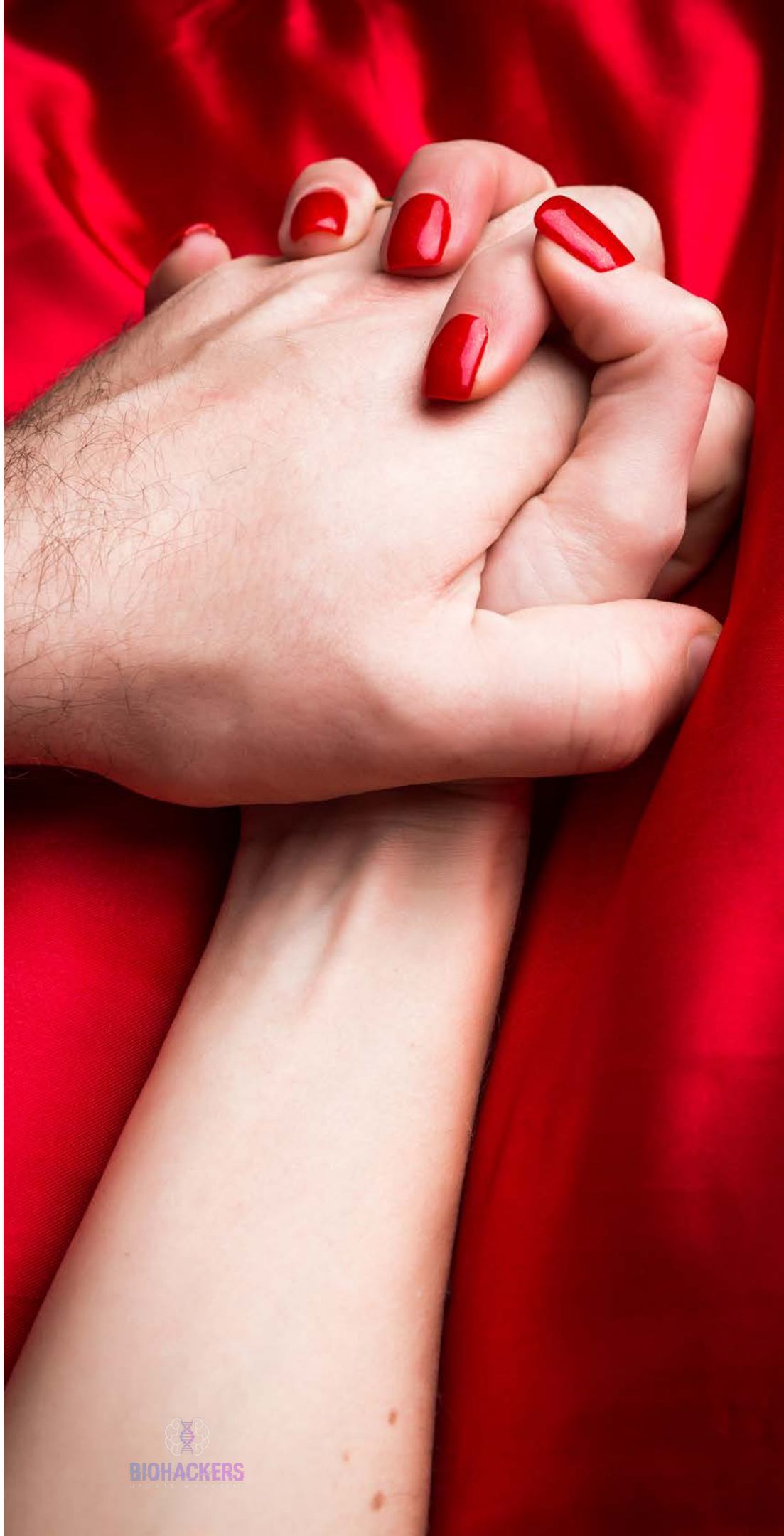
It is well known that various psychedelic drugs can produce unusual and even extraordinary subjective experiences. Remarkable changes in consciousness, mood, sensation and perception are typical as well as splendid visual displays of color, patterns and geometrics. Although not orgasmic in the strict sexual sense, personal psychedelic experiences, especially with LSD, psilocybin, mescaline and ayahuasca, can have descriptions that parallel if not duplicate numerous ones listed above in ESR/EO women.

#### **AGENTS & ACTIONS:**

In this article, we are especially interested in the visual displays and their associated states of consciousness. Considering that intense sexual sensations/orgasms, psychedelic substances and the Neuro VIZR all generate very similar, if not the same, subjective internal lights, colors and patterns, it is reasonable to consider the likelihood that different "agents" may trigger the same "actions".

If the proposed agent/action conditions are valid then it is also reasonable to consider that these seemingly very different conditions are capable of cross-referencing themselves within the human in ways that are cross-reinforcing.

The cross-referencing/reinforcing conditions have, in





fact, proven themselves for persons who have combined psychedelic substances with their sexual activities. In persons who do not normally experience ESR/EO, having ingested a psychedelic substance, orgasms may be perceived as lasting from many minutes to hours. During LSD induced Altered States of Consciousness (ASC), some female orgasms have been

coined "cosmic orgasms" in the psychedelic literature which is a term also found in Tantric literature. Typical reports state that sexual stimuli, such as fondling, touching, kissing, intercourse have a totally different format and effect that the person realizes that he/she has never experienced in his/her life before. Consequently, such drugs have gained a reputation

among some as potent aphrodisiacs. (A Cognitive Review of Psychopharmacology of Hallucinogenic-Induced Altered States of Consciousness: relation to Sexuality; Sayin, H.U., Sexus Journal, Winter 2018 / Volume 03 / Issue 07).

### **CROSS-REFERENCE & CROSS-REINFORCEMENT (CR/CR):**

Cross-Reference and Cross-Reinforcement (CR/CR) is a concept that describes the possibilities of two processes entering into a complex set of interactions in which the two separate processes begin to interrelate and then further support and fortify each other in a complementary way resulting in the merging of the two into a new temporary unity.

CR/CR is the presumed principle underlying the Expanded Sexual Response (ESR) as well as the Expanded Orgasm (EO). The Four Nerve & Six Pathway model in female physiology is thought to provide the increasing complexity, intensity, duration and expansion of a far more basic female orgasm. These seemingly separate elements enter into a CR/CR cascade of overlapping interrelationships that have the potential of expressing themselves as one of the many possible ESR/EO experiences.

Each element in and of itself has the capacity to excite and express a more simple, classic female orgasm. However, with CR/CR dynamics engaged, the simple classic orgasm can build on itself ex-



potentially with the full expressive capacities of ESR/EO experiences.

Considering the apparent fully developed CR/CR capacity in the female physiology, it is very reasonable to consider the concept of various exogenous influences having the ability to support and even trigger ESR/EO episodes. The natural endogenous neural and biochemical dynamics may be entirely receptive to compatible exogenous signaling related to ESR/EO expressions in the same way that human endogenous opioid receptors are receptive to exogenous opioid substances.

### CROSS-REFERENCE & CROSS-REINFORCEMENT (CR/CR) - THE LOGIC

Let us consider the following:

FACT: Psychedelic substances are capable of a CR/CR interaction with the female sexual experience in such a way that the two are increasingly potentiated.

FACT: Psychedelic substances are capable of a CR/CR interaction with the NeuroVIZR Vision Experience in such a way that the two are increasingly potentiated.

THEORY: NeuroVIZR Vision Experience is capable of a CR/CR interaction with the female sexual experience in such a way that the two are increasingly potentiated.

The theory of the VIZR Vision-ERS/EO potentiated CR/CR expression is based on the principle of the innate, archaic First Language of "organic codes" that may be registered as deep as the DNA itself. As such, different "agents" can

interact with cooperative systems in each their unique way yet still result in the same "action" as the final expression. Highly recognizable and typically very repeatable "Neuro Reality" internal displays of luscious colors, spectacular lights and gorgeous ineffable "sacred geometric" patterns are well known and accepted in multiple disciplines of study.

1) The CR/CR dynamic may act as kind of "universal translator" of endogenous/exogenous signal messaging. The significance of VIZR Vision type internal light/color/pattern expressions is that they are inseparable from powerful often precious subjective changes in personal consciousness. These "signs & signals" maintain highly significant "meanings" that cross over





physiological boundaries because they are unified by consistent “organic codes”. This is also the foundational premise of the new area of the Life Sciences known as Biosemiotics. (Source – Biosemiotics: a new understanding of life, Barbieri, M., Naturwissenschaften, DOI 10.1007/s00114-008-0368-x)

### A CLOSER LOOK AT “SIGNS”:

In First Language, it is recognized that there are two types of signs or signals:

- 1) Performative signals;
- 2) Symbolic signals.

The First Language interpretation of the above is that:

1) Performative Signals ARE the meaning by their nature:

a. Eg. the color blue excites an experience because of its very nature;

b. The experience itself is the “meaning” of blue.

2) Symbolic Signals HAVE the meaning assigned to them:

a. Eg. there is a particular type of four-legged mammal we call a “dog”;

b. There is an agreement in English-speaking populations to the “meaning”.

In the West, this same dynamic is represented slightly differently in the classics by Augustine (389 AD) as “symptoms” and “symbols”. From Augustine:

1) Signa naturalia = Natural signs

2) Signa data = Conventional signs.

Conventional signs have no physical relationship between the signs and the meanings. In Natural signs, there is a physical relationship between the signs and the meanings.

### VIZR VISIONS & EXPANDED FEMALE ORGASM:

The NeuroVIZR device generates unique eyes-closed light & sound experiences. The premise is that these experiences produce a sensory based set of “exercises” or “enrichments” for the brain. The “exercised/enriched” brain is affected with both short term “state” changes as well as possible long term “trait” changes if the Neuro VIZR Experiences are repeated and, in some positive ways, reinforced.

Fundamentally, it is likely that many of the ESR/EO experiences and especially the internal visuals of lights, colors and patterns and the VIZR Vision experiences are expressions of the very same First Language that is innate in all living organisms on the planet. The same First Language expressions are well noted in the psychedelic experience.

### FIRST LANGUAGE & NEURO REALITY (NR) – SHORT SUMMARY:

The “First Language” is new and novel term describing the primal capacity of human beings to directly experience and gain knowledge at a pre-intellectual level when awareness is turned towards the subtle states of consciousness and their internal sensory expressions.

Recent science has given us two new technologies that expand our exploration of consciousness and perception. Virtual Reality and its younger sibling, Augmented Reality present a person with access to expanded sensory based cognitive experiences. The au-







thor is here presenting another related category of experience, Neuro Reality.

Neuro Reality and its associated theories, technologies and methods are based on the ranges and realms of experience that present themselves when consciousness and the senses are turned inward. Neuro Reality is complex and rich with information and can be explored purposefully with impressive rewards.

Our daily experience of conventional external Reality is a mix of sensory impressions, symbolic representations and cognitive interpretations. Both Virtual Reality and Augmented Reality maintain these principles and extend or modify them in unique presentation styles.

Neuro Reality functions with a different premise. With consciousness and the senses turned inward, a quality of experience is available that pre-exists symbolic representation and cognitive interpretation. It is not poetry but rather the experience from which poetry emerges. Neuro Reality presents a direct consciousness based non-symbolic language that communicates rich and meaningful information without layers of symbol or interpretation. The language is the primal expression of information using energy itself as its alphabet, word and voice.

#### **NEURO REALITY (NR) & NEUROPLASTICITY:**

Neuroplasticity is the ability of the brain to form and reorganize synaptic connections, especially in response to learning or

experience or following injury. Beyond synaptic connections, there is also evidence of neurogenesis in the adult brain which is the growth of new neurons.

It is understood that the capacity of our brain to continue to “learn” and adapt is directly influenced by the actions we repeat. This adaptation is made potent anytime there is “attention” combined with at least a bit of “challenge”. It is very probable that the new “learning” required to attain ESR/EO experiences involves neuroplastic changes in the brain.

Here are the four basic types or stages of neuroplastic changes in the brain:

- 1) Functional Neuroplasticity:
  - a. Takes place in “moments” (seconds to minutes to hours);
  - b. Preexisting under-functioning synaptic connections that already exist are aroused into higher levels of efficient function;
  - c. Related physical neuronal pathways already exist;
  - d. Anatomically, each neuron has upwards to 10,000 dendritic synaptic connections;
  - e. Analogy: the routes and roads already exist but have not been used much for a period of time.
- 2) Synaptic Neuroplasticity:
  - a. Takes place over days to weeks;
  - b. New and different synaptic pathways are created to accommodate new demands;
  - c. Related physical neuronal pathways already exist.
  - d. Analogy: the roads already exist but new different routes are created using the same roads.

3) Neuronal Neuroplasticity:  
a. Takes place over months;  
b. New and different physical nerves (neurons) are created to allow the new synaptic connections and patterns.  
c. Analogy: for the new routes to be created, new roads must be built.

4) Systemic Neuroplasticity:  
a. Takes place over years;  
b. The new physical neurons and their evolving signal connections and pathways are integrated into all of the global systemic metabolic, adaptation and self-regulatory aspects of the organism as a whole.

c. Analogy: the new roads and routes are incorporated into the entire city transport system with adaptations in traffic flow and commuting patterns.

#### USING NEURO VIZR TO HELP DEVELOP EXPANDED FEMALE ORGASM:

You can see from above that new learning and positive adaptive changes take place in steps and stages. Normally, this is described as modifying short term "states" and building them into long term "traits". So...good news! Positive change is definitely possible.

The idea that certain NeuroVIZR Experiences can assist a woman in developing ESR/EO qualities is based on the "cross-reference/cross-reinforcement" concept. The human body as an evolved planetary organism has an innate system of "organic codes" - a way of "knowing without thinking". First Language is definitely pre-cognitive and does not require secondary symbols or signs.

Essentially and broadly stated, in a way similar to how sexual experience can be enhanced with psychedelics, it is very likely that sexual experience can also be enhanced by well-designed Neuro VIZR Light/Sound Experiences. It is the "cross-reference/cross-reinforcement" dynamic in action.

#### POSSIBLE NEURO VIZR/EXPANDED ORGASM METHODS:

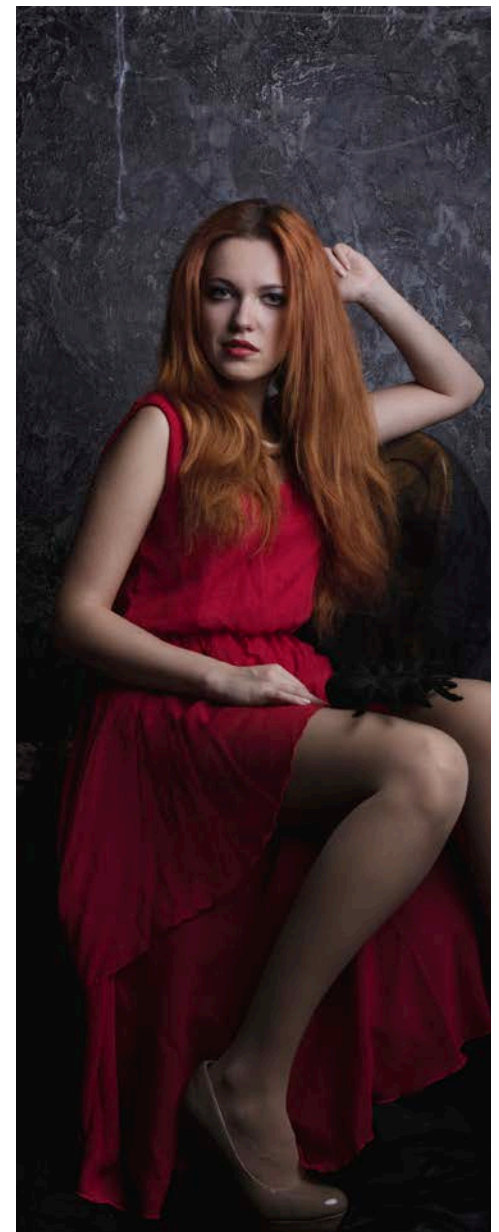
The typical Neuro VIZR Experience is 11 minutes in duration. Each "experience" is a light/sound composition with a "theme" or "vector" that is intended to coax the brain into a certain "probability state". For these special purposes, there would be a selection of "Neuro VIZR-EO" experiences to choose from. Each Neuro VIZR-EO experience would play a different but related role in the learning support processes.

The 11-minute Neuro VIZR Experience itself is very attractive and even entertaining. Immediately following the Light/Sound experience, the brain shifts into a "hyperplastic" state which means it is more sensitive and receptive than usual which is a good thing. It means you are more receptive to new learning. Think of it as the period of digestion that follows eating a meal.

Although there can be numerous variations in approach, it would seem most natural for a woman to explore this type of new learning during sexual activity combined with NeuroVIZR-EO Experiences.

Certain NeuroVIZR-EO Experiences could be used before sexual activity to stage and

prep the brain/mind. Technically, in neuroplastic methodology, this is known as "brain priming". Additionally (and remember, this is at the theoretical, although probable, stage), it may be possible to attempt aspects of sexual activity during a NeuroVIZR-EO Experience. Of course, the NeuroVIZR-EO Experience need not be used immediately or directly in relationship to sexual activity. Simply incorporating the unique Neuro VIZR-EO Experiences into your lifestyle with some reasonable regularity as reinforcement may well have an impressive overall benefit towards the goal of ESR/EO.





# About Garnet Dupuis



*Garnet was born and raised in Canada and is a naturalized USA citizen. He is an Integrative Health and Wellness expert, teacher & inventor with specialties in inter-disciplinary methodologies. With a wide experience in advanced technologies, Garnet has taught neuromodulation applications in major USA universities, professional sports teams, the Marine Corp and Naval Hospitals and lectured in European and Asian countries.*

*Garnet has a broad education including college, university and graduate trainings in Classical and Clinical Homeopathy, Oriental Medicine, Massage Therapy/Bodywork, Hydrotherapy, Remedial Exercise, Biofeedback, Psychology and English Literature.*

*Garnet is co-founder of Lucid Studios/neuroVIZR, Thailand. He currently resides in the tropical mountain rainforest in Northern Thailand. He is a life-long meditator and practitioner of Tibetan Dzogchen. Garnet is active in wild animal rescue and conservation and has built, manages and funds a sanctuary for SE Asian apes.*

[Website: https://neurovizr.com/](https://neurovizr.com/)



CORE

*The turning point in the process of growing up is when you discover the core of strength within you that survives all hurt.*  
- Max Lerner





# CHRISTIAN DRAPEAU

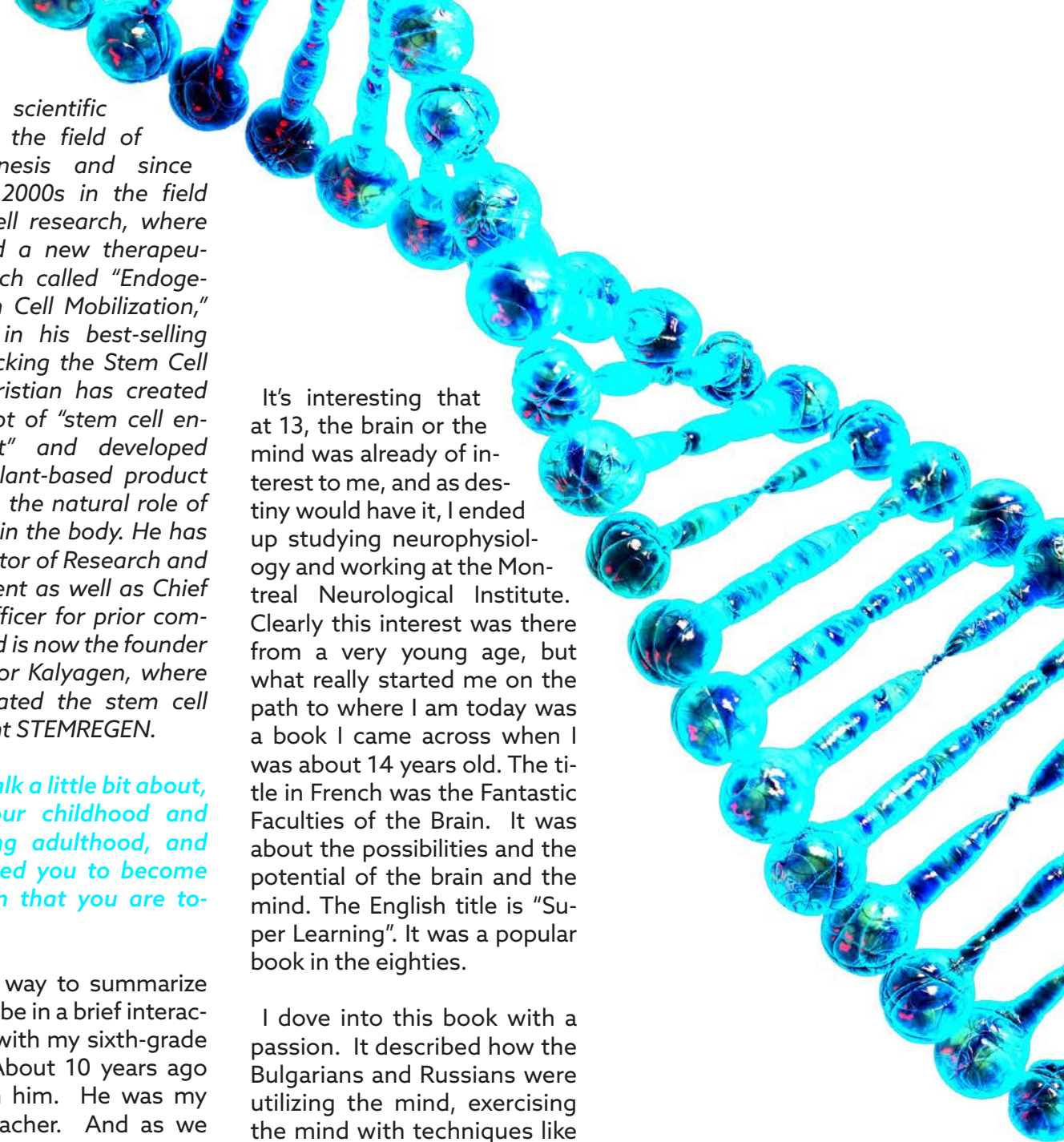
**STEM CELL SCIENTIST, AUTHOR OF  
BESTSELLING BOOK “CRACKING THE  
STEM CELL CODE”, INVENTOR OF  
BREAKTHROUGH STEMREGEN,  
PROMINENT SPEAKER, BIOHACKER**



*\*Listen to this conversation on our  
podcast by scanning this QR code  
or clicking [here](#)*

*Mr. Christian Drapeau is a great minded  
individual in the terms of recovery and  
stem cells. We're very excited to talk with  
him today. Just a little bit of background  
about the man himself. He holds a master's  
degree from McGill University in neuropsy-  
chology. His PhD thesis at the Montreal  
Neurological Institute touched on mecha-  
nisms of epileptogenesis. He is the author*





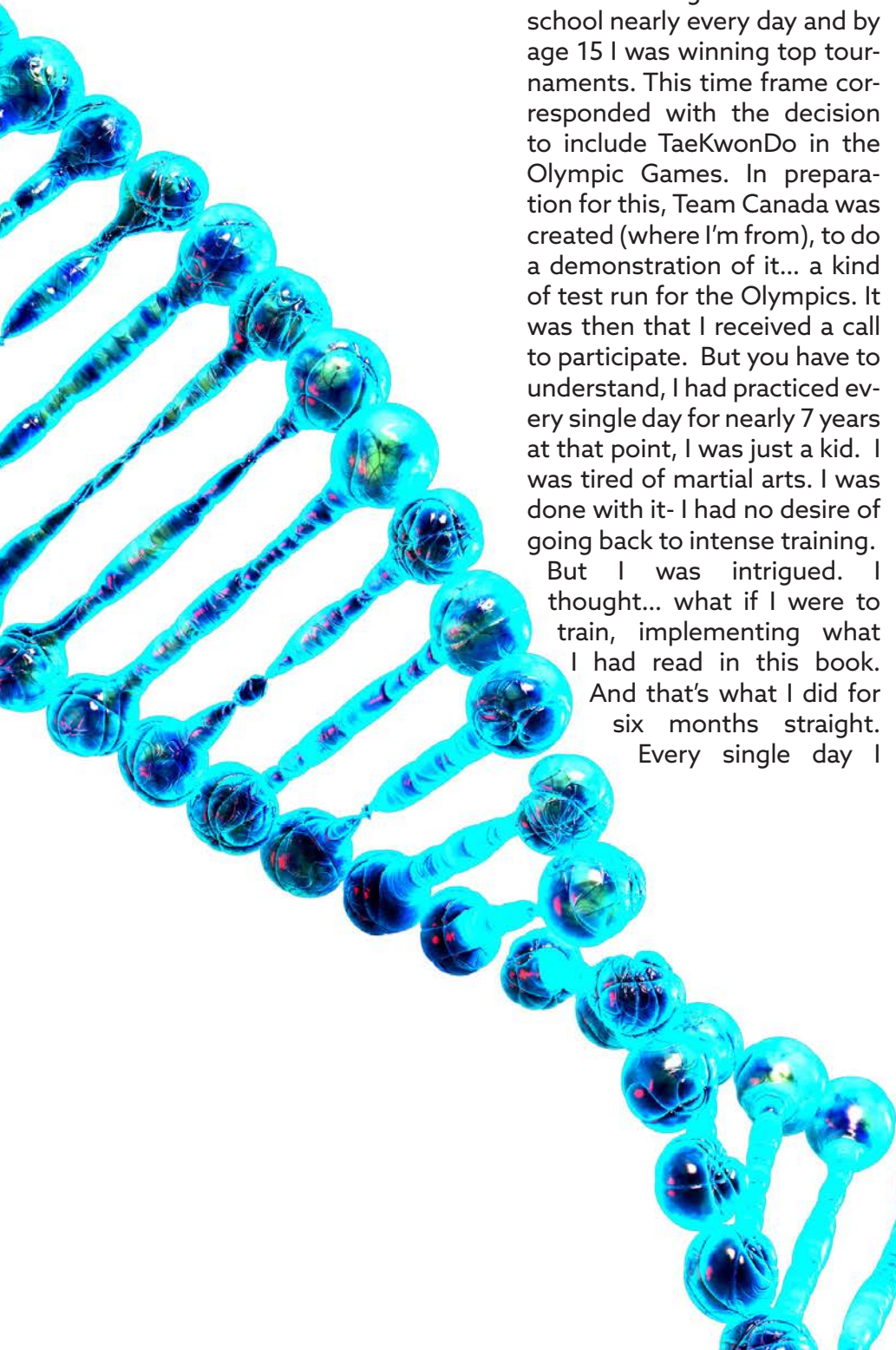
of several scientific articles in the field of epileptogenesis and since the early 2000s in the field of stem cell research, where he created a new therapeutic approach called “Endogenous Stem Cell Mobilization,” described in his best-selling book “Cracking the Stem Cell Code.” Christian has created the concept of “stem cell enhancement” and developed the first plant-based product supporting the natural role of stem cells in the body. He has been Director of Research and Development as well as Chief Science Officer for prior companies, and is now the founder and CEO for Kalyagen, where he formulated the stem cell supplement STEMREGEN.

*Can we talk a little bit about, briefly, your childhood and then young adulthood, and how this led you to become the person that you are today?*

The best way to summarize this would be in a brief interaction I had with my sixth-grade teacher. About 10 years ago I met with him. He was my favorite teacher. And as we were reminiscing on my time in his classroom, he shared a question I’d asked him on the very first day of school... I must have been 13... and I asked point blank, “How does the brain work?” He told me, “Let me double check on that and I’ll get back to you.” He said he’d hoped I would forget the question, which I apparently did as we never came back to it.

It’s interesting that at 13, the brain or the mind was already of interest to me, and as destiny would have it, I ended up studying neurophysiology and working at the Montreal Neurological Institute. Clearly this interest was there from a very young age, but what really started me on the path to where I am today was a book I came across when I was about 14 years old. The title in French was the *Fantastic Faculties of the Brain*. It was about the possibilities and the potential of the brain and the mind. The English title is “*Super Learning*”. It was a popular book in the eighties.

I dove into this book with a passion. It described how the Bulgarians and Russians were utilizing the mind, exercising the mind with techniques like self-hypnosis, visualization and so on to increase performance in Olympic games, sports and other things. Dr. Lozanoff in Bulgaria used many of these techniques to help primary school students complete two to three year’s worth of schooling in just a few months, or even learn languages in just days. I was fascinated by it, so I started experimenting in my own life. These techniques were



always described and utilized in the context of a coach with an athlete or a teacher with a student. But I was alone, so I basically started using these techniques and developing them in ways where I could apply them on my own.

The most notable application was in martial arts. I started TaeKwonDo when I was eight and I really did a lot of it. A LOT. I would go to class after school nearly every day and by age 15 I was winning top tournaments. This time frame corresponded with the decision to include TaeKwonDo in the Olympic Games. In preparation for this, Team Canada was created (where I'm from), to do a demonstration of it... a kind of test run for the Olympics. It was then that I received a call to participate. But you have to understand, I had practiced every single day for nearly 7 years at that point, I was just a kid. I was tired of martial arts. I was done with it- I had no desire of going back to intense training.

But I was intrigued. I thought... what if I were to train, implementing what I had read in this book.

And that's what I did for six months straight.

Every single day I

would spend nearly two hours just laying in my bed, doing self-hypnosis, visualizing every move of sparring, fighting, anything anyone could do to try to beat me. Any in every single visualization, I would find an effective counterattack. I remember at the time thinking that it wasn't possible for someone to beat me. I had seen in my mind every single attack my opponent could make.

So when I competed at the event, though I wasn't necessarily the most trained physically, definitely not... I won the competition. It was my first application of these techniques. After that, I started applying them to a myriad of things in life, like behavior modification, getting rid of the extreme shyness I had as a kid, and accelerating the learning process. I was definitely playing with the mind. I didn't think that psychology was scientific enough to fully understand the mind. I wanted to study the brain itself... So that's what led me to study neurophysiology.

*Wow, that's a great story. And I don't know if I heard this or I read this, but were you also living in a monastery during some part of this time?*

Yes. This is true. Let me put some context to what lead me there, as it's a big jump to take... from the full linear minded scientist to a monk at a monastery. Ultimately, it was the educational system- the institutionalized nature of it- that was the catalyst. But stepping back... I had start-



ed my studies in neurophysiology. Actually, the reason I went to McGill University is that it was the only neurophysiology bachelor's program. At any other university it was a Master's or PhD program. And because of the equipment needed to record muscle and neuronal activity, the class was restricted to six students. And I spoke terrible English at the time. I literally learned English while in college. But I got in the program nevertheless.

Each day as I listened in classes, I would pick up a few words here and there. So cumulatively, I would have a general idea of what they were talking about. Then at night, I would go back to the textbook and read on that topic using the dictionary and the same hypnosis/learning techniques I had used for Taekwondo. And in three or four weeks, I could understand English, though I still didn't speak it very well. I still don't know how I made my case to get accepted in the program. I surely didn't have the best grade given the language barrier... I guess I made a good impression in that I was probably the most interested in being in the program.

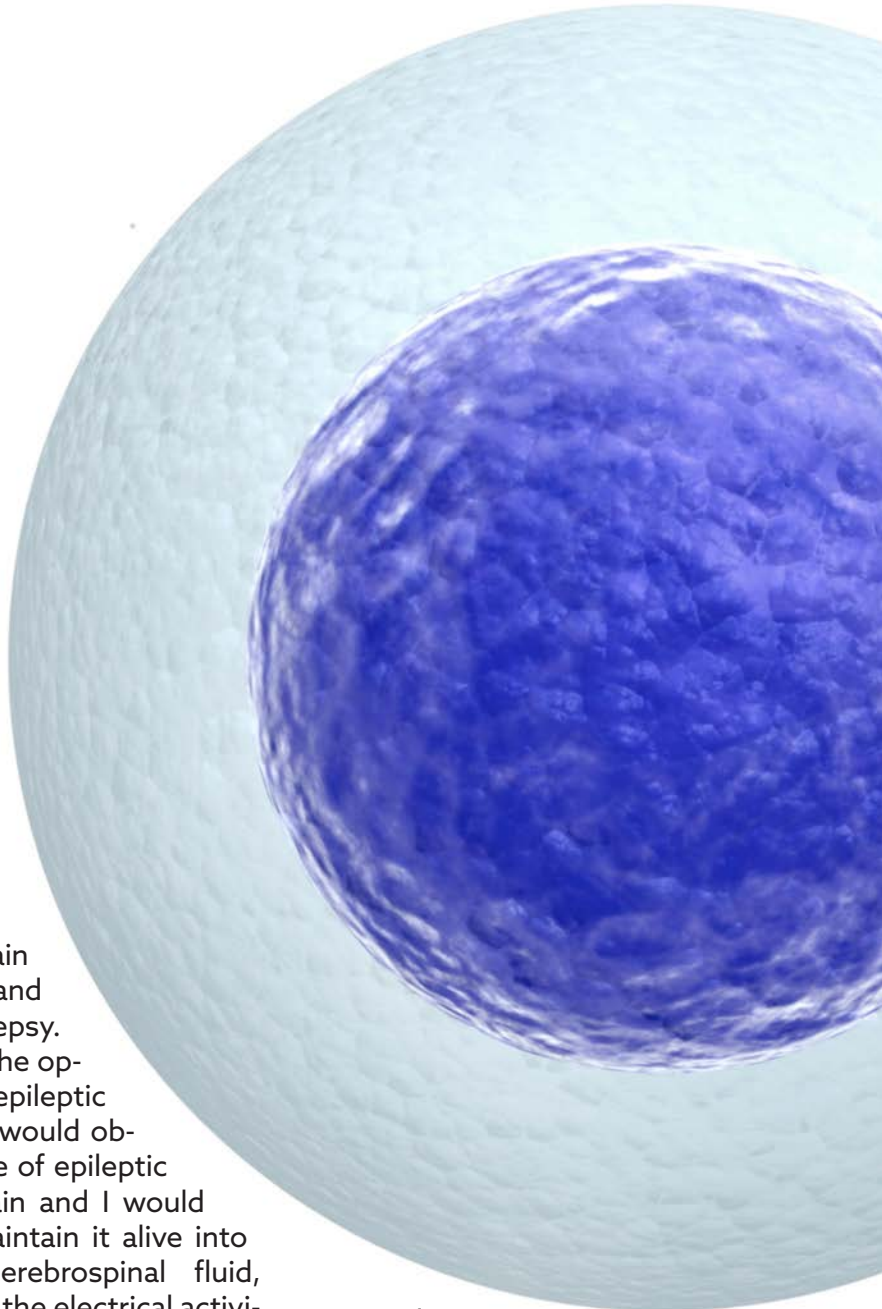
The program was so solid that when I finished and was considering a Masters, I skipped it and went directly to the PhD program where I focused on epileptogenesis... how epilepsy takes place in the brain. And I did some very cool work. My supervisor was collaborating with a neurosurgeon at the Montreal Neurological Institute at the time. He did sur-

gery for brain tumors and for epilepsy. And when he operated on epileptic patients, I would obtain a piece of epileptic human brain and I would slice it, maintain it alive into artificial cerebrospinal fluid, and record the electrical activity of the neurons, comparing it with normal brain tissue .

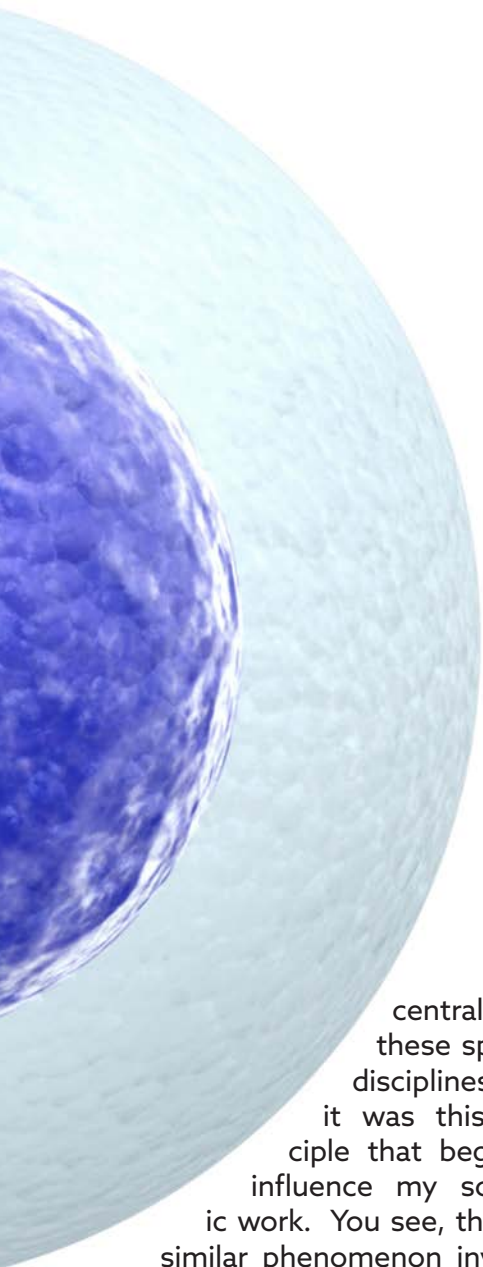
In all of this, I made an interesting discovery. When you look at the neurotransmitters in the brain, an epileptic brain appears normal. Epilepsy doesn't come from having too much excitatory or too little inhibitory neurotransmitters, hence the mystery of the cause of epilepsy. But what I discovered is that from a functional

standpoint, there is a rhythmic inhibitory activity in a normal brain that keeps the brain from becoming overactive. It is that rhythmic activity that suddenly fails in an epileptic seizure.

But while I was doing all this work, my interest into Yoga, Hinduism & Buddhism was also growing and flourishing. Obviously, reincarnation is







central to these spiritual disciplines and it was this principle that began to influence my scientific work. You see, there's a similar phenomenon involved in both epilepsy and memory- it's called long-term potentiation . As I was studying the cellular process of memory from neuron to neuron while also studying reincarnation, I noticed a conflict between the two. When you die, your brain is eaten by the worms. So if someone has memory of their past lives, this means that memory can't be located in the brain. And here I was putting electrodes in brain cells to

study memory while increasingly knowing that memory is not taking place in the brain itself. You have to look at this with some distance, I was a young man with lofty scientific aspirations who was developing a real interest in non-duality and the Vedanta, and all of a sudden science and spirituality were at odds. And as my belief and interest for non-duality grew, I began to lose faith and interest in the research I was doing. At one point during this time, I wrote an article describing that from a neurological standpoint, we need to let go of this notion that everything emerges from the brain... that the brain is more an interface than the origin of memory.

After submitting this article for publication, one of my professors told me that I had to withdraw the article else she would fail me. I didn't understand, as I had debated this article with her three times, and she couldn't refute my argument that was based on solid scientific references and sound logics. At some point the dean called me in his office and told me very kindly, "Christian, just wait to have your PhD before you express an opinion."

From a scientific standpoint, I was a purist. Titles meant absolutely nothing to me. My belief was that truth is the truth, no matter where it comes from. And to be told by my mentors that I needed to have a title before expressing something that appeared true to me basically killed my aspiration to continue. I had gone into neu-



rophysiology to understand the mind, yet I was realizing that memory and the mind were not in the brain. And I was silenced for questioning what to me appeared like a dogma. My spirit of inquiry was squashed. I quit the PhD, wrapped it up into a Masters degree, and I went to live in a monastery where I could better study the mind.

*That is an interesting story. I feel like a lot of times we're kind of pushed to acknowledge that the brain does everything; and the brain takes care of a ton of things, it's a super computer. But there's stuff that you can't account for with the brain; call it reincarnation, the spiritual side, the soul. You can go back to the earliest philosophers and a lot of them understood that. Socrates, Plato, Aristotle. That's always an interesting discussion. We could have a whole other discussion on that.*

Yes, and from a purely scientific angle, to me the thing that puts this whole discussion to rest is near death experience. If somebody goes through a near death experience - the heart has stopped, the body has died, the brain has flat-lined, there is zero brain activity - and these people come back and talk about what happened to them, their experience. Their conception of self is beyond a sense of body identity, they have a sense of a greater identity. They come back with a much greater understanding of what their life is about. They looked at it without any judgment, any regret,



and they gained a deeper understanding of where they're wasting their time, where they have a wrong understanding of their presence on earth. It's an absolute undeniable proof that we are more than the body and that consciousness does not come from the brain.

*Right, there's something*

*eternal that kind of exists beyond the death of the body in a way. I also wanted to talk a little bit about you and your mission for what you're doing now and how that aligns with your vocation of helping people find their healthiest selves.. So let me first ask, what gets you out of bed at in the morning?*



**What is it that drives you?  
What is your passion?**

I mean, it's really the product of what I have done with stem cells over the past 20 some years. I discovered with a colleague of mine, Dr. Jensen, that the blue-green algae *Aphanizomenon flos-aquae* -AFA- was acting on stem cells as a stem cell mobilizer. In 2001, this idea is starting to form in our minds that stem cells are the repair system of the body, and we have this product that puts more stem cells in circulation. It's either a great idea that means nothing, or it's a great idea that could change the face of health and wellness. I basically sent samples of this product to a friend of mine in France who had access to a lot of patients with different kinds of health issues.

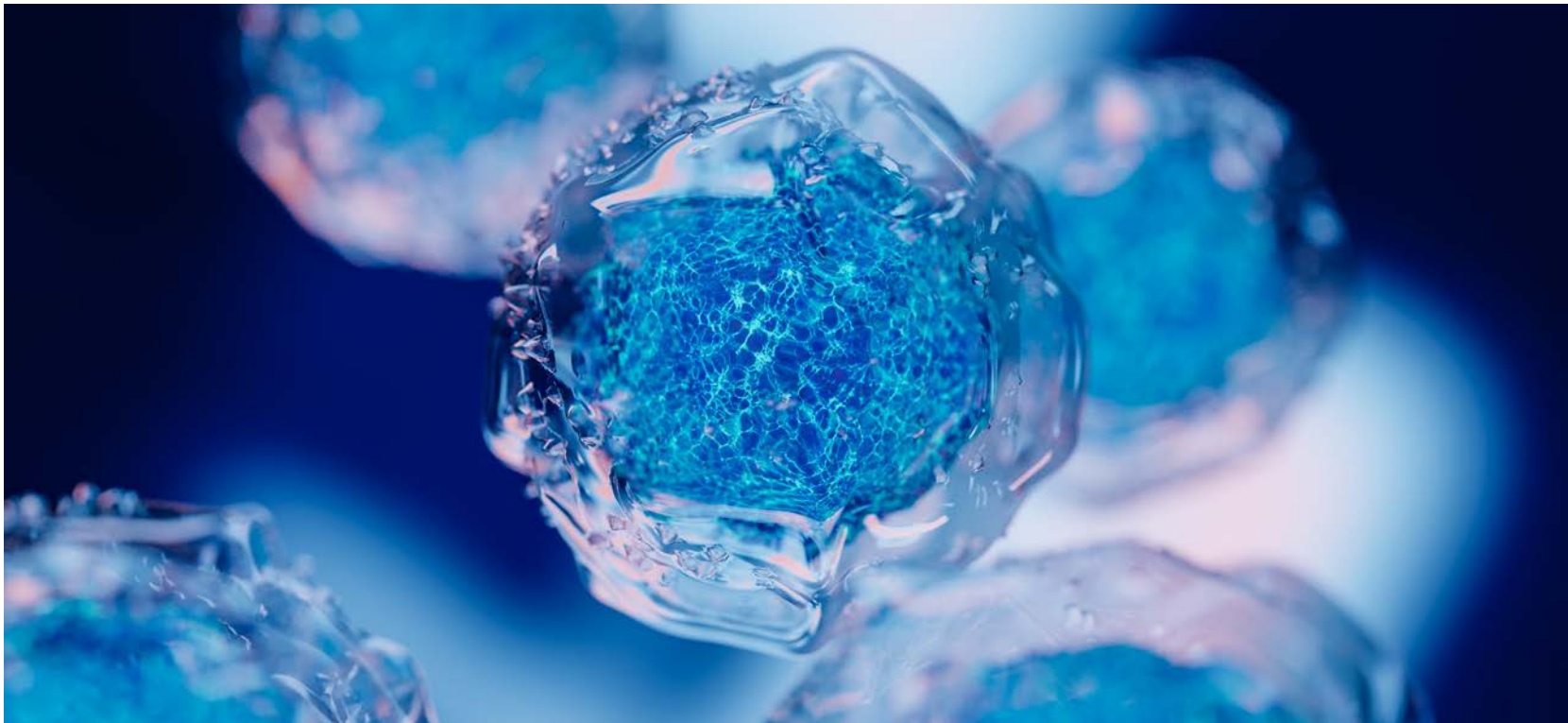
I told him to give it to his patients and tell me what they

experienced. And the results that came back were honestly spectacular and absolutely unexpected. I'm talking about a little girl with spinal myopathy that had never walked, never stood up. Within a matter maybe six weeks, this little girl started to walk around. There was a lady with severe emphysema, on an oxygen tank 18 hours a day. Two to three months later, I received an email describing how she had been able to go to the cathedral and climb the stairs, and that she was now fine. No more oxygen tank. In the years that followed, after we started to put this product on the marketplace and really share it, thousands of stories accumulated where lives have been drastically changed.

So for me, the greatest compensation ... the motivation that keeps me going is the extent to which my work can

really change lives. Hearing peoples' stories, as more and more people try STEMREGEN is what motivates me to continue. Let me put it this way, - and I know what I'm saying is utopic, -but putting STEMREGEN in the hands of everybody on this planet will change the face of the earth in terms of wellness. STEMREGEN is not magic pill... the real magic is the human body... STEMREGEN simply works by supporting our body's innate ability to heal. So in my heart, my motivation is to bring this to as many people as possible... to improve as many lives as possible.

*I think that's a great mission. So let's talk a little bit about the mechanism of that innate ability of the body to repair itself. How did you stumble upon that and use that discovery and desire to learn*



*more about that, to fuel what you're doing right now?*

I started to study this plant, the blue-green algae AFA, early in my career. At the time, the aim was to investigate the mechanism of action behind AFA's health benefits in order to support the promotion of AFA to consumers. We quickly identified three mechanisms of action on inflammation, mental clarity and immunity, but as I was doing this work I came across people who either improved or reversed serious conditions touching the heart, the brain, the liver, the lungs, the pancreas, skin, joints... almost every aspect of human health.

So we carried a numbers studies, we got good data, but nothing that really could explain what we were observing. Until one day, a colleague of mine sent me an article, the title was 'Turning Blood into Brain'. It was the first observation of a stem cell going from the bone marrow to the brain and becoming a brain cell. I studied neurophysiology, brain research; we were all told that the brain does not regenerate. We know today that it's not true, but in 2001, when that article came out, the fact that a bone marrow cell was observed going into the brain and becoming a brain cell, this was a total breakthrough.

So, my question was, is this the only study? What else can be found? I went to the local medical library and I found two more articles. One documenting how our stem cells could become liver cells, and another

one describing how they could become heart cells. This was a complete breakthrough. If stem cells can become cells of the heart, brain, and liver, why not the lung, pancreas and skin?

Through what mechanism of action can stem cells become brain, liver, heart, and not the rest? It cannot be. That meant that stem cells had to be the repair system of the body. How can stem cells become cells of various organs and tissues and not be the repair system of the body? It was pure speculation, but it made so much sense that we published this hypothesis in the journal *Medical Hypotheses*, proposing that stem cells were the repair system of the body. And the thought in the back of my mind was: what if AFA was working as a stem cell mobilizer, releasing stem cells from the bone marrow, it would explain everything we had seen.

By putting more stem cells in circulation, stem cells being the repair system of the body, they would go into the heart of the heart patient, the pancreas of the diabetic patient, the lung of the emphysema patient, the brain of the Parkinson patient, and that's what we had seen. We had seen benefits for all these conditions. So we developed a lab with a flow cytometer, and we started to count stem cells in ourselves. We took a blood sample, then took AFA, then took other blood samples an hour, two hours later, and counted the number of stem cells in circulation. And we saw







the whole phenomenon. AFA was acting as a stem cell mobilizer. So that's really how everything brought me to stem cell research.

*So you mentioned how you started with bluegreen algae, AFA, but you have taken these miracle properties from other plants, so to speak, correct? Can we get into a little bit of the specifics of how the plants themselves and the consumption of them works from the digestive system into the release of the stem cells, from the bone marrow itself?*

When we discovered that there was a plant that works by supporting the release of stem cells from the bone marrow, this brought new questions in our mind, along with doubts and skepticism. We identified the active compound, described the mechanism of action, demonstrated the proof of concept regarding Endogenous Stem Cell Mobilization, which is the release of one's own stem cells. But when we look at it now with 20 years of hindsight, the breakthrough discovery is that we have a repair system, just like we have an immune system. When you think about it, we have all experienced healing, we all have had injuries and we have all witnessed the healing process. But this process is never described. When you break a bone and get a cast, the doctor tells you to come back in 6 weeks, nothing is said about the repair process. That's simply because

we never knew that the body has a repair system.

And just like you have many plants that have an effect on the immune system, like Echinacea, medicinal mushroom, Astragalus, there are many plants that have an effect on the repair system, on stem cells. The moment we identified the first plant, the question in my mind was, what other plants could have an effect on stem cells? And how do we find these plants? So we took the protocol we had developed with AFA and we began studying other plants - medicinal mushroom, goji berry, seaweed, foti...

As we studied these different plants, we saw that they all had an effect on stem cells. Then I asked the question, what are the people living outside of the global economy using? If you go to Papua New Guinea, they can't go to the market and buy medicinal mushroom or Ginseng from China. They have their own local plant-based remedies. So if you go to Papua New Guinea, Madagascar, Africa, South America, what are the healers using locally as their go-to plants for a broad variety of health benefits, and let's go study these plants. That's how we found some of the main stem cell mobilizers we use in STEMREGEN- Sea Buckthorn Berry from the Tibetan Plateau, Aloe macroclada from Madagascar, Seaweed from Patagonia.

Going back to your question about the digestive track, we targeted these plants because

historically they have been associated with a broad variety of health benefits. But over the past 1,000 years or 2,000 years, plants weren't prepared in enteric coated capsules to make sure that they target the intestine. They were just eaten as plants. So as evidenced by their documented benefits, these plants are effective going through the digestive system. I will even go as far as to say that they may even be transformed by the digestive system in a manner that may enhance their efficacy.

*That is really interesting. So the starting point for a lot of your work in terms of choosing which plants to use, is just historical data of people saying that this has worked in amazing ways. So some have very little documentation or little research behind it?*

Some of them have little documentation like Aloe from Madagascar, for example. But Sea Buckthorn Berry has tons of documentation and has a profound backstory supporting its incredible healing power in the body. The scientific name for Sea Buckthorn Berry is Hippophae. 'Hippo' means horse, 'Phae' means light, so it means 'Shining Horse'. It comes from Alexander the Great.

At some point in his conquest in western China, Alexander Great abandoned a bunch of horses wounded in battle, and he left them to die in a field of Sea Buckthorn Berry. When he came back a few weeks later, he saw a herd of healthy, vibrant horses with a shiny coat. A

shiny coat is a sign of health for horses. From there, he started to harvest the berries and had all of his soldiers fill their bags with the leaves and the berries to bring back to Greece. The berry was named 'Shining Horse' and from there, it was integrated into Tibetan Medicine, Mongolian Medicine, Traditional Chinese Medicine. We find a lot of documentation for the use of Sea Buckthorn Berry for lung cancer, cardiovascular problems, diabetes, burns to the skin, broken bones. As I uncovered this wide range of health benefits, I felt it could be another stem cell mobilizer, so we derived an extract from Sea Buckthorn Berry and tested it, and we saw that it does in fact support stem cell release.

*That is fascinating. And it's not just Sea Buckthorn Berry, right? Can you describe the other plants that you use in this formulation of your product called STEMREGEN?*

Yes. We have the AFA extract. That's the first one that we documented. Then we have Sea Buckthorn Berry extract that I just talked about, from a remote area on the Tibetan Plateau. Then we have Aloe macroclada, which is a plant I came across through an interesting series of events. Aloe Macroclada was identified by a U.S. pharmacist as she was traveling to find remedies for Parkinson's and Alzheimer's. At the end of a trip to Madagascar, her guide and translator stopped in a small market and scooped a bag of small black pills and told her "test that". These pills were well known in

Madagascar and were used for all kinds of problems.

But for a scientist, when something is good for everything, what do you test it for? It stayed in her freezer for five years. When I met her and I told her what I was looking for, she sent me the samples that she had in her freezer and we tested it, and we got the strongest stem cell response that we have seen so far. At this point, it's our star ingredient.

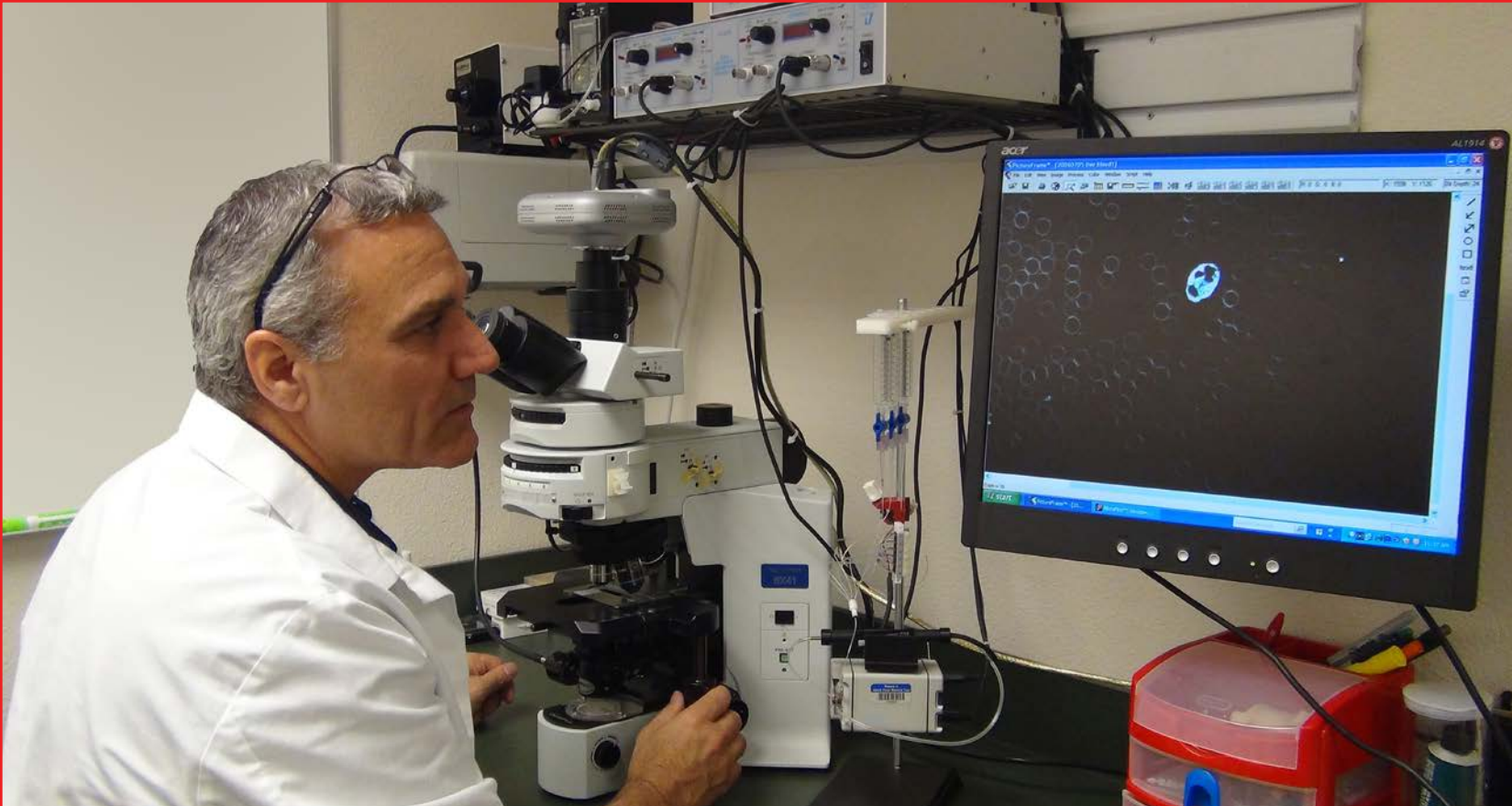
Madagascar has something like 65 different species of aloe, and only Aloe macroclada is used to make this remedy called Vahona. Malagasies are using it as a local remedy, but it's not something that has ever had large scale production and harvest.. As a protected species in Madagascar, we westerners can't touch the plant. So we have now developed a co-op with various farmers that have access to national land where we work sustainably, replanting beyond our harvest needs. My partner in Madagascar has spent years cultivating relationships there has led the operation locally. I've traveled the region with him several times now and really look forward to returning.

Our next stem cell mobilizing ingredient is Notoginseng, which came from the work of a doctor, a colleague of mine. I gave him an early version of STEMREGEN, the first formula I developed in 2016. At some point, he shared with me that when he gave ginseng alongside STEMREGEN, his patients experienced









much better results.

So I started to dig into the literature and I found that the original ginseng, Notoginseng, in fact an extract with a particular spectrum of notoginsenosides, had been documented to release stem cells from the bone marrow and to also be associated with healing repair in various aspects of human health, including the heart and the brain.. I sourced one unique extract of Notoginseng for STEMREGEN that I felt to be the most efficacious.

And the last ingredient is an extract from seaweed. In brown seaweed, there is a specific polysaccharide called fucoidan that has been documented to trigger the release of stem cells from the bone marrow. Studies were done using fucoidan from kelp, wakame and mozuku. In STEMREGEN we used an extract

from kelp as it contains both fucoidan and a class of polyphenols called phlorotannins, which are known for great benefits for health and longevity.

These are the main plants that I use as stem cell mobilizers. But in the process of studying plants for their effect on stem cells, we also studied goji berry, medicinal mushroom, and colostrum, because they're all associated with a broad variety of health benefits. But with these we discovered something completely unexpected, we saw a sharp decrease in the number of circulating stem cells, which came back to baseline after about an hour. After a few months of investigation, we discovered that these natural products triggered the migration of stem cells out of the blood into tissues.

So, what we have STEMREGEN are these five stem cell mobilizers, to which we added

highly fractionated Colostrum, the natural ingredient that has so far given us the strongest effect on stem cell migration, as well as 1-3 Beta-Glucans. So that's basically what we have in STEMREGEN. And we have added a very tiny amount of black pepper extract to increase the bioavailability of all these ingredients. That's STEMREGEN.

:

*Brilliant. Wow. So talk to me a little bit about when someone is on a regimen or taking STEMREGEN daily. What are the various factors and lifestyle factors that come into play that have an effect on efficacy? Are there other things that naturally decrease stem cell mobilization in our body, or our bodies' innate ability to repair that should be factored in when someone's considering taking STEMREGEN?*

:

Yeah. There is a lot that can we





very well known today. But at that time, in the 1980s, this link between stress and diseases was just emerging in the medical world. It was fascinating at the time to read how anxiety was associated with almost every single disease known to man. We can provide a lot of explanations, for example stress increases blood pressure and we have the consequences of high blood pressure. Cortisol affects blood glucose metabolism. Cortisol has been associated with certain cancers. Cortisol affects so many things in the body. But when we discover that anxiety and stress actually suppress our innate ability to repair and stay healthy, and we are stressed every day of our life, I believe we've just discovered the root cause of the impact of stress in our lives.

do in our lifestyle to support stem cells. What we know is that cigarette smoking will reduce the ability of stem cells to migrate in tissues and proliferate. And it does not just affect the smoker, it also affects anyone around breathing secondary smoke.

stops. So, our entire life we live with a suppressed repair system. :It's something that I find fascinating because I remember when I was in my teens, when I was first intrigued by the whole field of neuropsychology. What I'm talking about right now is

More recently, alcohol has also been documented to have an effect similar to that of tobacco. Then there is sleep. We know that when you have a healthy sleep cycle you produce melatonin as well as other compounds in your brain, which all help to support deep sleep. This also supports the migration and proliferation of stem cells in the brain.

To me, probably the most relevant is the effect of stress on stem cells. It was shown that stress hormones suppress the ability of stem cells to migrate into tissues and proliferate. This is deeply significant in our lives as modern human beings because stress is everywhere. Even kids today, teenagers, are exposed to significant stress. And it never

Another condition known to suppress or inhibit stem cells function is systemic inflammation. If we have significant systemic inflammation, I'm not saying pain in your knee or pain in one area, but overall systemic inflammation,





then this is also going to suppress the ability of stem cells to migrate into tissues. You can release stem cells, but they don't reach tissue. So taking products or eating food that can suppress systemic inflammation can support stem cell function. For example, products containing curcumin will do that. This is the list of what has been shown so far to affects stem cell function, though I'm sure we'll continue to discover more as research continues.

*Right. And it's a good note to say that the last two you mentioned, I feel like people have a little less control over, you know, the stress being definitely one of them. And alcohol and cigarette smoking, it gets to a point where it's hard to control, you know, addictive behaviors and everything, but it's at least a little bit more of a phenological thing that people can kind of control themselves. Yeah, stress is tough. You can never really quite get away from it. That's why it's so important to develop those tactics and good habits to help keep that person at ease.*

To control stress, what comes to mind is that beautiful quote from Mark Twain who said something like, "I've had a lot of problems in my life, fortunately most of them never happened." All this anxiety that we have about stuff that never even happens the way that we fear it would. Worry is extremely detrimental to our health.

*It's so true. I love Mark Twain. There's plenty of resources that tell you that if you start with being grateful for what you have at the very basic level, then it takes away a lot of*

*those preemptive worries that you force upon yourself. So, Christian, I want to talk a little bit about the regimen of STEM-REGEN, and what you guys offer in terms of a product, inventory and everything, and how most people usually get started exploring a relationship as one of your customers.*

As a general rule, we suggest 2 capsules 1-2 times a day. However, after 20 some years of working with plants that support stem cell release, I don't know how many times I have seen people taking two capsules a day for a few years, and talking about the benefits that they have experienced. And then they hear about someone who decided to go full out and take 2 capsules 3 times a day, and they reported extraordinary benefits. So the first person then starts to take the same regimen, and suddenly experiences a whole new level of wellness.

Christian:

So over time I have come to look at it in this manner: If you're just working on age related prevention, 2 capsules a day is great. But if you're tackling a more difficult health condition or you're a bio-hacker who wants peak health, the best way is to start slowly, taking 2 capsules for a few days, just to have an experience of what additional stem cells can do for your body, and then slowly go up to 2 capsules 3 times a day and do this for a month or two. It doesn't have to be for a long time. This way you can really experience what your body can do with a significant boost of stem cell release. And then you can return to the 2 capsule a day.

For maintenance, you don't always have to take it every day. You can take Stemregen every other day, or cycle by using it every other month. It's just a matter of



sending waves of stem cells regularly into your bloodstream to go and do repair as you lose cells every day. Follow what feels best for you according to your condition, health and goals.

*If I may interject, is it safe for breastfeeding women or pregnant women or people with different health conditions?*

Yes, it is safe, though you should always talk with your doctor as I can't give medical advice. Just to give some context here, when we discovered that these plants have an effect on stem cells, this

suddenly generated concern for people simply by the nature of the word 'stem cell'. But it's important to remember that these plants have been used for centuries. If we consider the historical use of these plants, none of these plants have been associated with problems of any kind. Seaweed can have iodine, but we use an extract of seaweed that contains very little iodine, something like 4 micrograms per serving. We have blue-green algae that contains about 8-10 micrograms of vitamin K. Your normal daily recommendation is 80 micrograms. But if you take anticoagulant that are blockers of vitamin

K, like coumadin, you may want to tell your doctor. One serving of spinach or broccoli will provide much more vitamin K than what you will get through STEMREGEN.

We have said over the years that if you have a disease of the bone marrow, like leukemia, then don't take a product that stimulates your bone marrow. But this being said, it's not something that we have seen in the decades of use cases. We still maintain this as an official warning, but the most ethical answer would be to say to check with your doctor, because I have had doctors come to me and say, "Please stop putting out this warning because I have one or two patients that have done very well on the product." So what do I do with this? At the end, I still maintain the official warning because I want to remain as safe as possible, but there is no real risk.

In short, the overall the answer is no, there is nothing to worry about. There's also no problem taking a lot of it. I have spent probably six years of my life taking about 18 capsules a day just to test what it would do. I travel a lot. I have north of 2.5 million air miles, so I'm constantly jet lagged. And all I can say that it has not really affected my health. Is it because I was taking 18 capsules a day? I don't know.

*And you're 58 today, so the viewers can make their own determination of how old you really look, I think you look younger than that. So 18 capsules a day might be a good directive for some people to follow. Talk to me a little bit Christian about the e-commerce and where people can go to find out more.*

Sure. STEMREGEN is sold by KALYAGEN. The website is [Kalyagen.com](http://Kalyagen.com). We wanted to



give universal access to the product. I want to be able to put STEMREGEN in the hands of as many people as possible. The product is not a cheap product. There is a lot of science behind it, and we source every ingredient. I visited farms in China, in Madagascar, in Australia, in many other places. We developed each extract, and the studies were done on these very extracts. So we have developed a subscription program as well as a referral program that can generate significant discounts.

*Great. Where can people go to find out more information about yourself and the product?*

You can find us on social media at [@KALYAGEN](#), and you can follow me directly on the science at [@stemcellChristian](#). Anytime I get questions, I put out a video to answer these questions. Trust me, there's a lot of content for you to nerd out on, but if you have any unanswered questions, feel free to go the website and ask, and we'll have somebody answer to you.

*Great. Christian, it's always a pleasure and I look forward to talking with you again soon. I'm sure everyone has learned a lot and I look forward to the new issue.*

Likewise. Thank you so much.





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A close-up photograph of a woman's eye, looking slightly to the right. The eye is the central focus, with a reflection of a building visible in the iris. The surrounding skin is illuminated with a vibrant, multi-colored light that creates a rainbow spectrum effect, transitioning from purple and blue at the top to yellow and orange at the bottom. The lighting is soft and ethereal, highlighting the texture of the skin and the details of the eye.

# RECHARGE-RED LIGHT AND HORMONES

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Mastering Your Hormones.  
Mastering Your Health.



Hormones are your body's way of triggering and halting different biochemical and biological processes. Our body tells us when to sleep, eat, rest, be physically active, or even how to feel, by secreting hormones. Their influence on our lives is enormous.

That is why it is of utmost importance to keep your hormones in balance. Having balanced hormones means being healthy. Unbalanced hormones directly translate to poor health, foul mood, lack of motivation, and a plethora of disorders that can have an impact on your quality of life. In worst-case scenarios, imbalanced hormones cause diabetes, cancer, and other life-threatening conditions.

Therefore, to master your hormonal balance means to master how you optimize your health. Today, as we know more and more about how hormones work, the medical approach is slowly stepping away from using drugs and medicine for hormonal balancing.

Red light therapy is one of the most promising tools for restoring hormonal balance and resetting your disrupted circadian rhythm.

Whilst some serious hormonal imbalance requires hormone replacement therapy (such as insulin for diabetics, or T4 supplement for those with an inactive thyroid gland), in other, milder cases, herbal supplementation and new natural measures could be the answer. Recent science tells us that using red and near-infrared light that mimics the power of the sun seems the most logical way of achieving balance naturally.

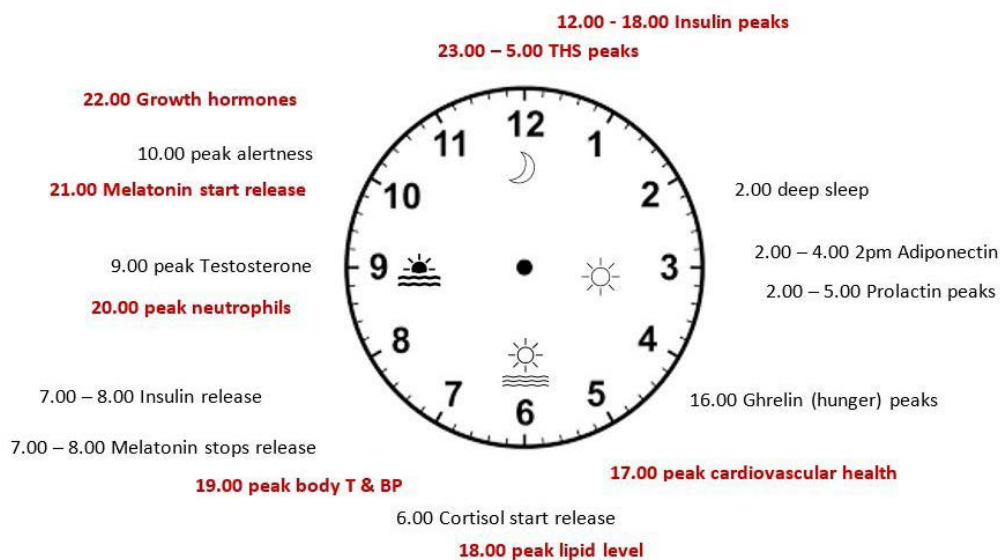


### Circadian Rhythm: The Rhythm of Your Health

Circadian rhythm represents the sequence of all the changes your body and mind go through during a 24-hour period. For the better part, each of the hormones in your body has its own rhythm. They get released into the bloodstream, reach peak concentration, and then slowly dissolve. These cycles cause some important biological actions.

For example, testosterone levels rise in your body in the morning. It gets you awake and alert. Around 9 am, testosterone is at its peak. That's when you are the strongest and it's the best time to exercise.

### Circadian Rhythm is linked to Hormones & Functions



Now when it comes to having a good night's sleep, and in order for you not to wake up during the night, your bowel movement slows down significantly throughout the night and is most active in the morning. That is because it follows the life cycle of your serotonin. Bowel movement is slow when serotonin is low and it increases in the morning when the serotonin levels rise (Cespuglio et al. 1983)

However, if the hormones are not peaking and dropping at their correct times, that's when the problems begin. One of the most critical situations is when cortisol levels rise at the wrong times. Stress is a common cause of this.

When cortisol isn't "on track" you feel sluggish and can't get out of the bed in the morning, you feel foggy, miserable, and fatigued. It is also the cause of those stubborn inches piling up around your waist. That is because cortisol also triggers ghrelin (which causes hunger) and suppresses insulin (the hormone that helps regulate sugar)

### **What's Disrupting Your Hormonal Balance?**

Our bodies adjust the rhythm of hormone release to the day-night exchange. How do our bodies know if it's night or day? They react to the (lack of) sunlight.

The sunlight comes in all sorts of wavelengths, some of them are more prominent than others at certain times of the day. Red and near-infrared light are the strongest at dawn and dusk. Blue light is characteristic of the middle of the day. That is why we react to blue lights by being alert and quite different from the red and near-infrared spectrum.

It should all work out fine, right?

Yes, if you wake up at dawn, spend a lot of time outside throughout the day, reduce your screen time to a bare minimum and go to bed on time. But, that's not easy today, is it? Our modern lifestyle involves many factors that cause a disruption of our hormonal balance: prolonged sitting, poor diet, lack of sleep, and most of all - a lack of exposure to sunlight. Natural sunlight is what we, as a species, need to function properly.

*All of our biological processes rely on the big and bright clock in the sky. Our hormones and our circadian rhythm depend on it. These days, when we are hidden from the sun for the best part*





*of the day, our body gets confused and our hormones miss their mark.*

However, aren't we under artificial light all that time? How are artificial lights different from natural light?

They produce zero near-infrared light. The only light they produce is visible light. That is not enough for our hormones to play their part. Hormones get secreted during the wrong periods of the day, or even worse, hormones that should not be in the bloodstream at the same time clash together. As a result, our bodies develop all sorts of disorders and diseases. Even our emotional and mental wellbeing becomes severely affected.

### **Essential Hormones and What They Do**

Circadian rhythm is a symphony of your essential hormones throughout the day. The story of hormones is a complex one. However, to understand the basics in relation to the circadian rhythm, it's enough to look into some of the 'major players.' Here is the list of some of the main hormones and what they actually do.

**Cortisol** - This is an adrenal gland hormone. Its main function is to respond to stress signals and keep the body alert. It is there to help us stay aware of threats and get ready to react. Additionally, it has anti-inflammatory properties.

**Leptin** - This hormone is released by your body fat. It regulates your feelings of hunger and feel-



ings of being full. Generally, this hormone is responsible for “telling” you when to stop eating.

Ghrelin - This hormone does quite the opposite from leptin and in a way, balances out what leptin does. Namely, ghrelin is the hormone of hunger, and it makes you want to eat. Its duty is to secure enough energy for your body.

Growth Hormone - Another name for the growth hormone is somatotropin. Of course, its main function is to help your body grow when you're younger, but it doesn't stop there. It is also responsible for cellular reproduction and regeneration.

TSH - This is a thyroid-stimulating hormone. It signals your thyroid that it should release more thyroxine into your bloodstream.

Melatonin - There are so many things melatonin does. It regulates your sleep/wake cycle, acts as a powerful antioxidant, and even helps with DNA repair.

### **Melatonin Control as the Key to Mastering Your Hormones**

Traditionally, it was considered that melatonin is produced by the pineal gland. That is true but Scott Zimmerman discovered something amazing. Namely, he proved that our cells make melatonin within themselves, as well. He showed that there are two types of melatonin.

For better understanding, we'll call the melatonin produced by the pineal gland - the night melatonin, because this melatonin helps regulate sleep. Many people who sometimes suffer from insomnia know that it's possible to buy over-the-counter melatonin supplements to help them fall asleep easier. Night melatonin regulates the circadian rhythm.

Zimmerman's discovery shows us that there is another type of melatonin - the day melatonin. The day melatonin is produced within the cells and it acts as a powerful antioxidant. It has a big role in cell repair and regeneration.

If we consider the 24hr period to be a symphony of hormones, each of them playing their part, melatonin would be the conductor that gives the signal to the orchestra to start or end the symphony. That is why the key to rebalancing the hormones lies in controlling the proper melatonin levels throughout the day and night.

To sum up - during the night, melatonin helps regulate our circadian rhythms, and during the day it turns into an antioxidant.

In both of these situations, the sun plays an im-

portant role. It still needs to trigger the production of both day and night melatonin. Again, since we don't get as much sunlight exposure as we used to, we need to find another way to trigger these essential processes.

This is where red and near-infrared therapy come in.

### **Red Light Therapy: Natural Way of Restoring Hormonal Balance**

The pineal gland produces melatonin as a reaction to the environmental conditions and the state of the day/night cycle. In other words, when your body recognizes that nighttime is approaching, it starts producing night melatonin. This signifies an important mark in our internal circadian rhythm.

Our bodies have evolved to recognize the red and near-infrared wavelengths emitted by the sun as the environmental cue to start preparing for melatonin production. The same result can be achieved by red and near-infrared light generated by red light therapy devices.

When this type of device uses just the right combination of wavelength, irradiation, and energy density, it can help your body recover from over-exposure to the blue light (coming primarily from different screens) and restore healthy melatonin production. Red light from your device will trigger the necessary processes within the pineal gland and stimulate it to produce melatonin.

What about the powerful, antioxidant day-melatonin? Red light therapy helps with that, as well. Zimmerman proved that the intracellular production of melatonin also gets a boost when the body is exposed to near-infrared light.

*Once the night and day melatonin production is restored to its natural state, the rest of the hormones fall into their place much more easily. Basically, melatonin restores the circadian rhythm and the rest of the hormones follow its cue.*

Even though restoring proper melatonin production with red and near-infrared therapy is enough to help restore the circadian rhythm, that's not all that it does for hormonal balance.

Both leptin and ghrelin are influenced by red and near-infrared therapy. Specifically, Figueiro et al. described their experiment in their paper Light



Modulates Leptin and Ghrelin in Sleep-Restricted Adults. Their experiment showed that leptin concentrations after red light in the morning are much higher than when this exposure doesn't happen.

At the same time, a lack of sleep and lack of proper melatonin levels cause the rise in ghrelin. Consequently, it seems that our bodies try to make up for the lack of sleep with more food. This leads to excessive caloric intake and the possibility of adding on weight and increasing the risks of diabetes.

This study investigated the effects of sleep deprivation on the production of leptin and ghrelin, but also whether the exposure to light of different wavelengths could reverse this sleep deprivation effect. Usually, people who maintain a 5-hour sleep schedule experience a rise in ghrelin and a drop in leptin concentrations.

The study followed subjects for 5 days. All subjects maintained a 5-hour sleep schedule during that period. Right after they would wake up, they were exposed to dim, green, blue, or red light. The results of the study clearly showed that people who were exposed to the red light after their 5-hour sleep were able to reverse the effects of sleep deprivation to some extent.

Experiments like this show that science increasingly focuses on the health benefits of red and near-infrared light. If you type in "red light therapy" on Google Scholar, it will return 3,130,000

results. Not to mention that this number grows if you add "near-infrared" or "photobiomodulation" to your search. However, the scientists are not the only ones with such focus.

People are becoming more mindful of both their health and wellness. They are exploring the ideas of longevity, as well as the natural ways to achieve it. There is a very obvious positive trend of people trying to hack their bodies, supporting them to perform optimally.

Consequently, modern health and wellness technology have to follow these trends. New devices are created to help people thrive and reach these health and wellness goals. Their aim is to offer natural health boosters in an attempt to counter the negative effects of a fast-paced lifestyle.

Red light therapy devices are an evident result of such efforts. They boost immunity, balance hormonal health, promote faster recovery, and effectively relieve pain. Every day, they are becoming more accessible to the general public. That is yet another trend that we should look forward to as it announces a rise in general health and wellness levels everywhere.

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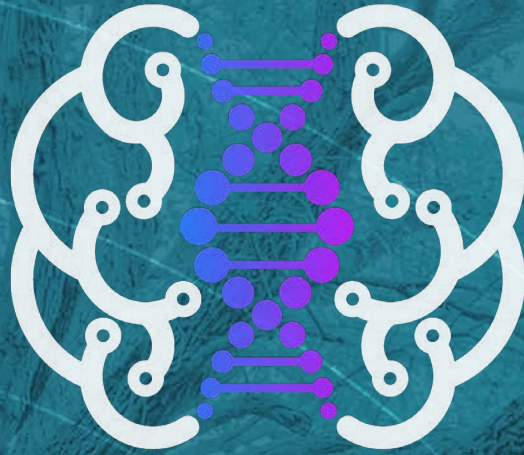
## ABOUT DR ZULIA FROST



Zulia Frost (MD, DCMAC) is Co-Founder, and the Head of Clinical at Recharge Health, inventors of the FlexBeam (<https://recharge.health/>). Driven by her passion for innovative therapeutic technologies and the

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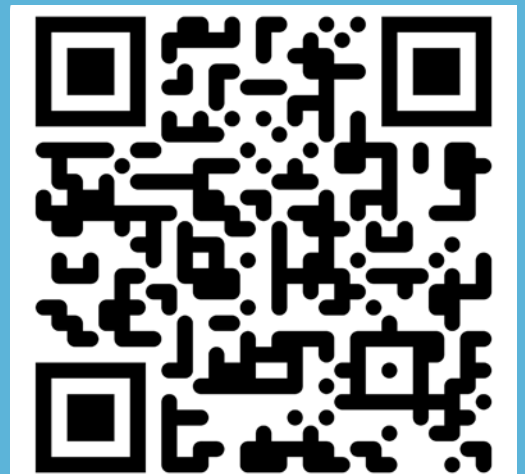
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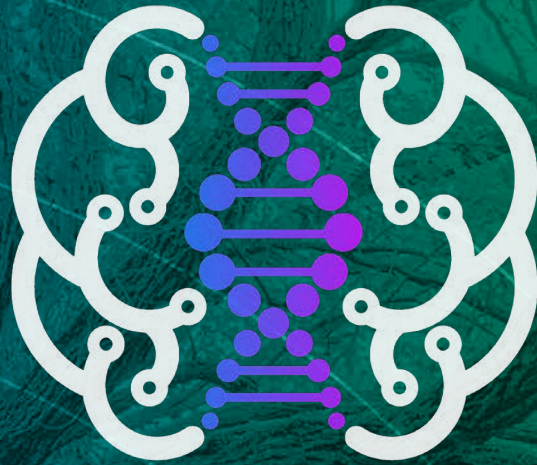
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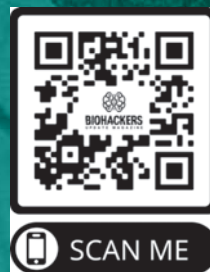
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