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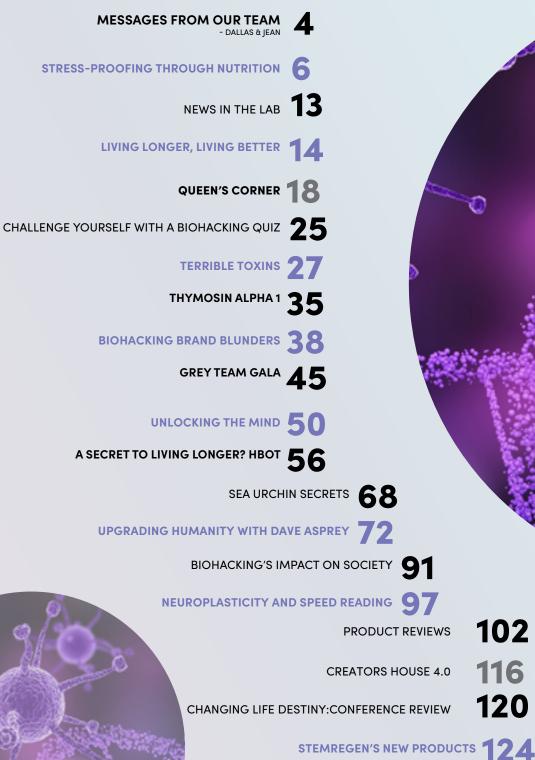


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TABLE OF CONTENTS -

28th EDITION MAY 2024





WHAT IS A HUMAN BEING?

Does the question of who you are ever and who the human being is in general, ever come across your mind? Its one of those questions that seems to pop up and never lose its curiosity and flare for attention. As we continue our journey towards a better life, we often ponder this question while taking actions that slowly mold our responses to it. The way we live our lives is the practical answer, but what about before the action? What shapes our manner of thinking before we act and does the answer to 'What is a Human being' help us act in the best way? Let's take a look at the theoretical side.

The Human being can be viewed from the outside and explained this way, but it also must be explained from the inside of a human being. Starting from the outside, we look at the human being with prescientific knowledge or common sense. What separates man from every other creature is his ability to think rationally. What man lacks in survival endowments such as long claws, fur, etc., man makes up for in his ability to know. Man can think and know that he thinks. There are many different areas where the human being shows this separation of pure intellect. One would be his tool-making ability, or homo-faber. It is true that some monkeys can make tools, but it is only man that makes these tools not just as an extension of their bodily reach, but as a direct fruition of their thoughts. Community, Language, Science, Arts, Religion, Death, and Culture are all elements that show man's rationality, his intellect.

We now move to the inner structure of man, the ontical, real structure of man. This side brings us face to face with man's intellect. The intellect exists via the soul and thus acts through it. St. Thomas Aquinas notes that the soul is that which forms the body. Within the soul of a human being, there exists the intellect and the freewill. The intellect is concerned with the process of knowing the truth. Knowledge involves processing new data from what is real, from reality. When in the process of knowing, the first thing that the intellect grasps is existential judgment, meaning, does this exist or not exist? Keeping inside the lines of the Aristotelian system, we are taught that we come to know cognitively our ideas and thoughts by the world acting on our senses.

The human being has the free will as the second power of its soul, and it is this element where the drama is set for man to decide between following the cultural influences, or the genetic (natural) influences. Much like how Knowledge aims for knowing the truth, Freewill of man aims for a particular, concrete good. The freedom of man to make a decision holds the aim of morality. Decision making involves three main phrases: Intention of the goal, Order of concrete action, and the order of execution. Within these phases, there are two types of practical judgments a human being makes. The first is a theoretically practical judgment or synderesis, which means that one knows that their action is good and coincides with the natural law. The second is practically- practical judgment or auto-determination, which decides whether to agree with the natural law and /or the divine law.

Thus, we can define a human being as a rational animal, a compositum of both body and soul. Its soul is the subsistent element, and its powers involve the knowing intellect and the will to do good. With freewill aiming toward good, and knowledge aiming towards the truth, the human being works towards becoming more beautiful in the sense of intentionality, of culture.

Let's continue to intellectually biohack with truly sound judgment, not just for the fulfillment of ourselves but for the health of every human being. Let us all aim high and when we seem to lose ourselves in the noise of the journey, let us come back to this old-age question and remember what we're made of, who we are, and where we're going.

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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BXOHACKERS

A VISIONARY'S IMPACT: DAVE ASPREY'S CONTRIBUTIONS TO BIOHACKING AND LONGEVITY

Dear Biohackers Magazine Readers,

In the vast, ever-evolving space of biohacking and longevity, few names resonate as profoundly as Dave Asprey. A pioneer who has seamlessly blended the zest of innovation with the intricacies of science, Dave has been instrumental in molding the biohacking landscape as we know it today.

As I discovered during our recent chat on the "No Plan B" podcast, Dave's journey began with a personal quest to enhance his own health, which then blossomed into a global movement. This movement encourages us all to take control of our biology, to hack our bodies for better health and enhanced longevity. The biohacking space is burgeoning, evolving, and continually welcoming new visionaries.

What truly sets Dave apart is his knack for making the complex science of biohacking accessible. He has democratized the science of longevity, making it available to everyone from Silicon Valley executives to fitness enthusiasts in small towns across the globe. His books, podcasts, and talks ignite crucial conversations about the potential of human enhancement.

At Lifespanning Media, where we champion the integration of science, art, and technology to enrich the quality and essence of life, Dave's pioneering work resonates deeply. His contributions have inspired a community of thinkers, doers, and dreamers. We are immensely proud to support his 10th Anniversary Biohacking Conference in Dallas this month.

The insights shared during our podcast interview are essential for anyone committed to the pursuit of peak performance and wellbeing. Dave's vision and dedication remind us of our role at Biohackers Magazine: to push the envelope in the longevity space, to continue exploring, questioning, and transcending the boundaries of what we believe is possible.

Here's to many more years of innovation and inspiration.

Jean



About Jean Fallacara

Jean, a visionary entrepreneur and neuroscientist, is a pioneering biohacker and founder passionate about merging science, art, and technology. With a remarkable IQ of 167 and an MIT background in AI, VR, XR, Biochemistry, Genetics, and Biotechnology, he's earned numerous awards and distinctions. Having founded ventures like Z-Sciences, he strategically led its acquisition by inTEST Corp in 2021. As the Founder of Lifespanning Media, Jean aims to mainstream human longevity, emphasizing well-being and longevity exploration. His mission involves social connection, life-science education, and multimedia content to redefine lifespan boundaries. Beyond technology, Jean embraces a holistic lifestyle in Miami Beach, prioritizing family, self-optimization, and gratitude.

Jean@lifespanning.com @cyborggainz Website: Jeanfallacara.com

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Enhancing Cognitive Performance in the Corporate World

by Charlène Gisèle

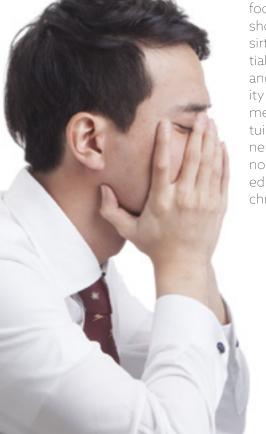
— TYPICAL CORPORATE DIET

environment, the ability to maintain a high level of cognitive performance under stress while avoiding Burnout is a necessity. The relentless pressure to meet deadlines, exceed targets, and innovate can take a toll on the best of us, leading to premature aging, inflammation, and impaired cognitive performance. Yet, emerging research suggests that the key to surviving and thriving in today's demanding corporate conditions lies in how we fuel ourselves. Making deliberate choices about what foods we

silience to stress and enhance our cognitive performance. I want to share with you the foods I use and advise my high-performing corporate clients to consume to stressproof themselves and maximize their cognitive performance.

With corporate jobs keeping us mostly glued to our chairs, having a diet made up of primarily carbohydrates and sugar sends us on a rollercoaster of sugar highs and crashes, which makes it even harder for our minds and bodies to manage stress. This standard

In today's fast-paced corporate consume can bolster our brain's re- corporate diet doesn't just leave us feeling sluggish and unfocused in the short term. Over time, it can pave the way for some serious metabolic health issues, like diabetes, obesity, and hypertension. Relying on these nutrient-poor, calorie-dense, and convenient foods is counterproductive to sustaining cognitive performance. Instead, it's time to rethink grab-and-go food options and start to build the habit of indulging in food options that will help build our resilience to stress and fuel our mind and body for cognitive performance.



BLUEBERRIES

food, rich in resveratrol, which show an increase in the activity of sirtuins. These proteins are essential for maintaining cellular health and directly impact the brain's ability to process information, support memory, and manage stress. Sirtuins also positively influence two neurochemicals, serotonin and norepinephrine, which are depleted when we remain in a state of chronic stress.

Blueberries are a fantastic brain Regular consumption of blueberries can improve cognitive functions, making them a must-have for anyone looking to stay sharp and focused. The protective effect against cognitive decline is particularly relevant for professionals who rely on their mental agility to navigate daily complex problem-solving and decision-making processes.

When I can, I opt for organic blueberries, or I make sure to wash them before eating to avoid pesticide exposure, which can undermine their health benefits.

GRASS-FED — MEAT

The omega-3 fatty acids found in grass-fed meat are vital for brain health. They play a crucial role in stabilizing stress hormones and protecting the brain from the neurotoxic effects of chronic exposure to cortisol. Omega-3s also enhance the production of Brain-Derived Neurotrophic Factor (BDNF), a key element in neuronal repair, inflammation reduction, and overall brain health. Increasing levels of BDNF is a performance must, as high BDNF levels improve our

LIVER

Liver is a powerhouse of B vitamins, which are essential for optimal cognitive function. Specifically, vitamins B6, B9, and B12, which are abundant and bioavailable in liver, help maintain low homocysteine levels in the brain. High levels of homocysteine in the brain can lead to cognitive decline and decreased mental performance. Many of the health issues that result from high stress are also associated with a deficiency in B vitamins. Therefore, liver is an essential food for stress-proofing and will help the brain remain protected from work stress-induced damage.

ability to learn memory and improve our emotional regulation, which is essential for the mental endurance and resilience needed in high-stress corporate settings.

Grass-fed meat is readily available in most supermarkets, but the best options I have found for grass-fed meat are building a relationship with your local butcher or sourcing meat from an online butcher, which can deliver high-quality meat at a great price to your door.

To integrate liver into your diet, consider eating a small 50-gram amount each day. One method is to keep it in the fridge and cut a small piece to eat with your meals. Another is to cut it into small 50-g cubes and freeze them, then consume them as needed; this can be a good way if you don't enjoy the flavor.

If daily consumption does not suit your lifestyle, eat at least one liver-based meal weekly. Lamb's liver is my preferred liver to consume as I prefer its milder flavor compared to beef liver.



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DARK CHOCOLATE

Dark chocolate, especially the varieties that contain 75% cocoa or more, offers significant cognitive and stress-proofing benefits. Cocoa's high flavanol content has been shown to reduce cortisol and adrenaline levels.

The flavanols in cocoa cross the blood-brain barrier and directly enhance brain function. This makes dark chocolate an ideal snack for those moments when you need to reduce stress quickly or improve your cognitive performance before a critical business meeting or when working on complex projects.

I like to eat one 25-gram serving a day, preferably in the afternoon when my energy levels have started to dip, and my work stress levels have begun to rise. A 25-gram serving of dark chocolate can provide up to 1000 mg of flavanols. This small portion is enough to stimulate cognitive benefits without overindulging in calories or sugar, making it an intelligent choice when wanting to maintain focus and productivity throughout the workday.

CRUCIFEROUS VEGETABLES

Cruciferous vegetables, such as broccoli, cauliflower, and kale, are rich in sulforaphane and guercetin, which are compounds that activate the Nrf2 pathway. This pathway plays a crucial role in protecting cells from oxidative stress, which is linked to cognitive decline and premature aging. By incorporating cruciferous vegetables into your diet, you can enhance your brain's antioxidant defenses, which will help to deal with the oxidative stress caused by work stress and other environmental stressors that often come with corporate work.

To maximize the benefits of cruciferous veqetables, I recommend consuming at least 2-3 servings per week. These vegetables can be easily integrated into meals in various ways to ensure a consistent intake. My favorite way of consuming them, and the one I find most convenient for my clients and me, is roasting a mix of these vegetables with a drizzle of coconut oil, beef tallow, or high-quality extra virgin olive oil and a sprinkle of sea salt.

RAW AGED CHEESE

While I may be biased due to my French heritage, recommending raw-aged cheese as a nutritional powerhouse for stress-proofing is well-founded on its remarkable health benefits.

Its high calcium content is crucial for lowering stress and inflammation, supporting muscle function, and boosting metabolism. When calcium levels drop, the body responds by increasing pro-inflammatory parathyroid hormone (PTH), but higher dietary calcium from cheese can keep this response in check. Cheese is also a great source of salt, which plays a critical role in the transmission of nerve impulses throughout the brain and body, ensuring we remain alert and focused. Many probiotics are also found in raw aged cheese, which helps to bolster the gut microbiome and plays a significant role in our mental health and stress resilience.

Manchego is a raw sheep's milk cheese, a favorite of mine because it tastes fantastic. It is also available in most supermarkets, making it an accessible choice for those aiming to improve their stress resilience through diet.



OXTAIL

With its high glycine and gelatin content, Oxtail stands out as a superior cut of meat for enhancing stress management and sleep quality. Glycine and gelatin are crucial to helping our nervous system maintain calmness in high-stress environments. Glycine acts as an inhibitory neurotransmitter to promote a sense of mental calmness, which is essential to helping busy professionals maintain composure and clarity.

Glycine has also been shown to significantly enhance sleep quality. It aids in reducing the time it takes to fall asleep and helps you stay asleep longer and go through more restorative sleep cycles. One of the most significant factors impacting health and work performance outcomes is the poor sleep quality that often comes with working a highstress corporate job. Oxtail, with its high amounts of glycine and gelatin, will help individuals wake up feeling refreshed and alert, ready to tackle the challenges of a new day.

Glycine and gelatin also help balance the amino acid ratio in our diets. Muscle meats are high in amino acids like tryptophan and cysteine, which, when consumed in excess ratios to glycine and gelatin, can be pro-aging and inflammatory. The glycine and gelatin in oxtail help to balance the ratio, minimizing inflammation and ensuring meat remains a nutritional powerhouse with little adverse dietary side effects.

The best way to cook oxtail is by slow-cooking it with a mix of vegetables and herbs, which not only infuses the dish with a wealth of nutrients but also provides the convenience of a meal that can be enjoyed throughout a busy week. You can also use Oxtail to make bone broth, which is rich in many additional nutrients and minerals. Bone broth can be easily carried in a thermos and serves as an excellent beverage instead of relying too much on coffee or sodas, which you can drink throughout a busy workday to hydrate and maintain mental focus.

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CONCLUSION

Your food choices have significant consequences when it comes to maintaining cognitive performance in high-stress environments like the corporate world. Foods rich in nutrients that boost brain health, such as omega-3 fatty acids, B vitamins, antioxidants, and flavanols, can significantly enhance your mental agility, resilience to stress, and overall cognitive capabilities. As we navigate the complexities of modern professional life, let's remember that our diet is not just fueling our bodies; it's the key to stress-proofing our bodies and unlocking our brain's full potential, enabling us to achieve excellence in every endeavor.





Charlène Gisèle

Charlène Gisèle is a former Lawyer turned High-Performance Coach, Podcaster and founder of the unique Charlène Gisèle® Coaching method. Charlène empowers high-achieving professionals to prevent and recover from burnout without having to sacrifice their career. The power of her approach is not to work less; it is about recovering more, which is why her expertise has been featured in major publications and is sought after by world-leading organisations and professionals.

Podcast: https://charlenegisele.com/podcast/

IG: @charlenegisele

Some of the latest scientific research in the fields of lifespanning and longevity

Mushroom Power Boosts Muscle Recovery: Cordyceps Sinensis Turbocharges Stem Cell Response to Exercise

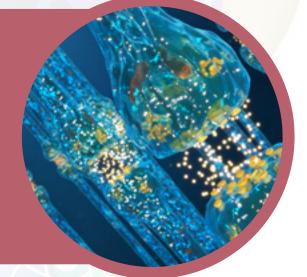
A groundbreaking study unveils the muscle-revitalizing prowess of Cordyceps sinensis, a parasitic fungus. Pre-exercise supplementation accelerates muscle repair by hastening stem cell recruitment and expansion after high-intensity interval exercise. This promising finding suggests Cordyceps as a potent aid for faster muscle recovery post-exercise.

https://pubmed.ncbi.nlm.nih.gov/38501161/

Collagen Power: Long-Term Supplementation Boosts Function and Reduces Pain in Active Adults"

Exciting research reveals the transformative effects of collagen peptide (CP) supplementation on pain reduction and functional enhancement in middle-aged active adults. A double-blind trial shows significant improvements in activities of daily living (ADLs), pain levels, and mental and physical health over 6 to 9 months, highlighting collagen's potential as a powerful nutritional intervention.

https://pubmed.ncbi.nlm.nih.gov/37551682/





Gut Power: Resistant Starch Promotes Weight Loss by **Transforming Gut Microbiota**

"Exciting research unveils the weight-loss potential of resistant starch (RS) by reshaping gut microbiota. In a controlled trial, RS supplementation led to significant weight loss and improved insulin resistance in overweight individuals. The study highlights the pivotal role of gut bacteria in RS-induced weight reduction and metabolic improvements.

https://pubmed.ncbi.nlm.nih.gov/38409604/



THE ALLIANCE FOR

The Imperative of Policy for a Healthier Future

n the midst of rapid advancements in biotechnology and medicine, our understanding of health and longevity is being revolutionized. Yet, the question remains: are our policies keeping pace with the potential to extend not only the length of life but also the quality of it? The Alliance for Longevity Initiatives (A4LI), a nonprofit 501 (c)(4) organization dedicated to advancing legislation and policies that increase healthy human lifespan, is at the forefront of efforts to ensure they do.

The establishment of the first Longevity Science Caucus in 2023 marked a significant step towards integrating the goals of longevity science into U.S. policy. This bipartisan group, representing districts with a prominent biotech presence, is fo-

by Brenda Eap

cused on increasing appropriations for aging research and streamlining regulations for the longevity biotech industry.

Recent legislative milestones, such as Montana's expansion of the Right to Try Act, demonstrate how policy can evolve to provide broader access to innovative therapies, thereby setting a precedent that could reshape healthcare access nationwide. This initiative allows patients, not just those terminally ill, to access treatments that have passed Phase I safety trials, thus potentially accelerating the benefits of groundbreaking therapies to a wider population.

Yet, while these steps are promising, they also underscore a larger necessity: the need for an informed and engaged public that understands and supports the extension of healthspan through policy. A4LI's public engagement efforts, including educational briefings and advocacy, are crucial in fostering a knowledgeable base that can advocate for such policies.

The journey of longevity science from a niche interest to a significant policy area mirrors successful advocacy movements in other health domains, such as cancer and Alzheimer's disease, where sustained advocacy has led to substantial legislative and funding victories that have transformed the landscape of disease treatment and prevention. For example, the National Cancer Act of 1971 and the Alzheimer's Accountability Act have both led to significant increases in funding and focus on these diseases, demonstrating the impact of targeted policy advocacy.

The potential benefits of longevity science are profound. By treating aging itself, we may be able to delay or prevent the onset of multiple age-related diseases simultaneously, transforming our approach to health maintenance in older populations. For instance, if therapies targeting cellular aging could prevent or delay diseases like Alzheimer's, cancer, and diabetes, the implications for healthcare costs and quality of life would be revolutionary.

To further this cause, A4LI has pro-

posed several key legislative actions: 1. Doubling the National Institute on Aging's budget to enhance aging research.

2. Implementing an Advanced Approval Pathway for Longevity Medicine to facilitate faster access to innovative therapies.

3. Encouraging Congress to consider a Longevity Dividend, which would aim to increase the average healthspan by five years.

Public involvement is crucial. By

joining organizations like A4LI, citizens can make their voices heard on Capitol Hill and ensure that longevity science receives the attention and funding it requires. Supporting such initiatives not only promises a healthier future for individuals but also for society as a whole, as the economic and social benefits of a healthier, longer-living population are immense.

As we look forward, the dialogue around healthspan extension must



continue to grow, encompassing all sectors of society—from policymakers and researchers to the general public. Only through a combined effort can we ensure that the marvels of modern science are fully harnessed to improve lives. Longevity isn't just about adding years to life but adding life to those years, and the policies we advocate for today will define the quality of life for generations to come.

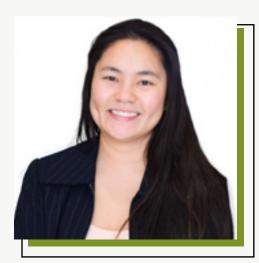
By getting involved, staying informed, and advocating for supportive policies, everyone has the opportunity to contribute to a future where longer life is synonymous with better life. Join the movement toward a longer, healthier future—a future where policy innovation keeps pace with scientific advancements, ensuring that the benefits of longevity science are accessible and equitable for all.

Support A4LI's Movement and Impact on Capitol Hill

By becoming an A4LI member for an annual membership fee of \$50, you are signing a petition to help us sustain and expand our impact on Capitol Hill. Members' contributions go towards annual D.C. Fly-ins and lobbying initiatives. A4LI members are also invited to join lively discussions in their Telegram group chat, access exclusive content, and support other longevity nonprofits and longevity consumer companies at a discounted rate. Visit https://a4li. org/ today and receive 10% off on an annual membership using promo code BIOHACKERS10 .







Brenda Eap, PhD

After witnessing the contrasting health journeys of both my grandmothers, Brenda came to understand that aging is a malleable process influenced by both genetics and the environment. She pursued a first of its kind doctoral degree in the Biology of Aging from the University of Southern California and Buck Institute for Research on Aging in Novato, California where she studied the age and sex-related changes in the metabolism and epigenome of a wild-type mouse model. During her time as a graduate student, she enjoyed presenting her research and recognized the opportunity to advocate for better health and more public research funding in geroscience research. Today, Brenda serves as the Vice President of Operations and Partnerships at The Alliance for Longevity Initiatives, where she collaborates with lobbyists and longevity biotech companies on legislation that support increased geroscience research funding and improved regulatory pathways for geroscience therapies that will ensure they are accessible and equitable to all.

Reens Caner

FROM BED REST TO BIOHACKING: A MOTHER'S JOURNEY TO HEALTH AND HEALING

BY DR. LAUREN LEIVA





Velcome to the first edition of Queen's Corner, a space dedicated to exploring the intersection of biohacking and other popular topics such as motherhood, curated by yours truly, Dr. Lauren Leiva, DPT, also known as the Queen of Biohacking. As we launch this column on Mother's Day, I am honored to share my journey, shaped by my own mother, the trials and triumphs of motherhood, and fueled by a relentless pursuit of holistic well-being.

Seven years ago, I was faced with a challenging decision when I was advised to have an abortion. However, I refused because I had unwavering faith that my son would be okay. It was a deeply spiritual and connected moment with God that cannot be easily explained but felt in the core of my being.

During my pregnancies, I faced severe health complications, including being hospitalized for almost nine months due to a septic infection caused by exploratory radiology. Despite the challenges, I was determined to do whatever it took for the well-being of my child. Being on TPN throughout the duration of the pregnancy, which meant nothing by mouth, was a profound experience that tested my strength and resilience. In the end, my son was born healthy and strong, much like my firstborn.

The journey of motherhood is filled with trials, sacrifices, and moments of pure love that shape us into the individuals we are meant to be. The bond between a mother and her child is a force that transcends words, rooted in a love that knows no bounds. Through my personal experiences, I have come to understand the depth of a mother's love and determination. In the realm of biohacking, I have discovered some very important things for myself and I won't keep the secrets to myself...Below are my top ten biohacks for moms:

1.

Prioritize Sleep: Establish a consistent sleep routine to ensure you get enough rest. Quality sleep is essential for overall well-being and energy levels. My top recommendation is the anti aging bed cover. Once you hop in the garden of Eden you will never go back. It's like sleeping on earth's surface. My personal sleep routine improved by two hours per night confirmed by my Oura ring.

4.

Exercise Regularly: Incorporate physical activity into your daily routine to boost your mood, energy levels, and overall health. I combine my workouts with the Neubie from Neufit. It's a great product and if you use code: Exerscience you will get a special discount! There are also products like the Carol bike, blood flow compression and so much more! Biohackers can talk all day about this aspect.

5.

tion.

Stress Management: Practice stress-relief techniques such as meditation, deep breathing exercises, or yoga to reduce stress and promote mental well-being. I teach Bikram Yoga, Vinyasa, Yin, Yoga Nidra and so much more. Sound healing has also been a part of my tool kit. Traditional ways are amazing and got me through my hospitalization but a great device to TAP into immediately is the BrainTap device (Add in benefits of braintap)

Stay Hydrated: Drink plenty of wa-

ter throughout the day to keep your

body hydrated and maintain optimal

function. I recently learned about

hydrogen infused water on the go.

I've known about hydrogen tablets

and different powders, but this takes

it up a step. Check out the Luma Vi-

tae hydrogen water bottle and it's so

much more than that. Just like my

sleeping routine, this water bottle too, has earth frequencies and the

sun's energy, as well as chromother-

apy and many other cool features, check out my link for more informa-



Nutrient-Rich Diet: Focus on a balanced diet rich in fruits, vegetables, lean proteins, and whole grains to provide essential nutrients for you and your family. I stay away from any MLM companies when it comes to food and nutrition. I believe the Earth has many great sources as well as multiple companies out there providing amazing products, one from PLUCK - a seasoning I use for my family because they do not want to directly eat whole organ meat. The benefits from this seasoning go above and beyond the taste.

6. Time Management: Prioritize yourself because without you can't be a good mom or partner etc. Then prioritize tasks, delegate when needed, and create a schedule that allows for self-care and quality time with your family. Balance is important. I like to set alarms so I can be in the moment. I do not wear a watch, nor do I want to stare at one. Whenever I see people look at their watch, they are thinking of something before or after. Setting alarms is a great way to remain in the moment and put your devices away - ESPECIALLY AROUND YOUR KIDS.

7.

Social Support: Stay connected with other moms for support, advice, and camaraderie. Building a strong support network can help you navigate the challenges of motherhood. Join the Biohacking conferences, retreats, and events. Hanging out with like-minded individuals goes a long way. A wise man once said if you hang out with 5 alcoholics you could be the sixth and if you hang out with five superhuman individuals, you could be the sixth as well. Birds of a feather flock together.

10.

Regular Health Check-ups: Never take my advice in replace of your doctor but these days there are so many ways to access diagnostics about your health and get a sneak peak on how your doing. My clients can order blood work guarterly, but also analysis, cortisol, and so much more. The Anti- Aging bed has a Bio Scanner that can scan the body and assess all organs. Don't wait until you need to fix something... check in regularly and optimize yourself. You're worth that. Do you wait until your car breaks to fix it or do you maintain it? Your body is your temple. Treat it that way.

8

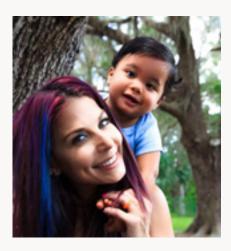
Self-Care Rituals: Make time for self-care activities that rejuvenate your mind and body, whether it's a relaxing bath, reading a book, or enjoying a hobby. Have an intention to release what no longer serves you so you can grow spiritually in this life. When you let go you allow the good to come in. Plant medicine helped me on this journey to let go. Because we have been through so much, it's very difficult to be soft, kind and gentle with ourselves when we feel there is no time, especially if you work. This is why Biohacking is awesome to help optimize your routines. I stack my Biohacks.

9.

Mindfulness Practices: Practice mindfulness to stay present and appreciate the small moments of joy in your daily life. Check out Tru-Calm and TruBlue from Troscriptions. It's the perfect dose of methylene blue to get you going and keep your hyper focused. I love the blue cannitine with the microdose of nicotine. It works magic for focus and energy. By incorporating these biohacks into your daily routine, you can optimize your well-being as a mom and nurture a healthy and balanced lifestyle for yourself and your family.

But more than just a vessel of information, Queen's Corner is a sanctuary—a space where you can ask questions and get answers. Send your questions to info@theexersciencecenter.com and receive raw and uncensored feedback, of the nurturing spirit that resides within each of us, guiding us on our journey of self-discovery and self-realization. And remember, that in every challenge lies an opportunity for growth, and in every setback, a chance for renewal.

Here's to the journey ahead, filled with wonder, wisdom, and boundless potential. Welcome to Queen's Corner—where motherhood meets biohacking, and the possibilities are as infinite as the stars.





IG: <a>@theexersciencecenter



Dr. Lauren Leiva, DPT

Lauren seamlessly integrates ancient divine wisdom with the forefront of modern medicine and Biohacking techniques. Her holistic approach transcends conventional boundaries, weaving together the realms of mind, body, spirit, and heart. As a practitioner, Dr. Leiva attunes herself to the unique needs of each patient, addressing both tangible and intangible forces influencing the human anatomy.

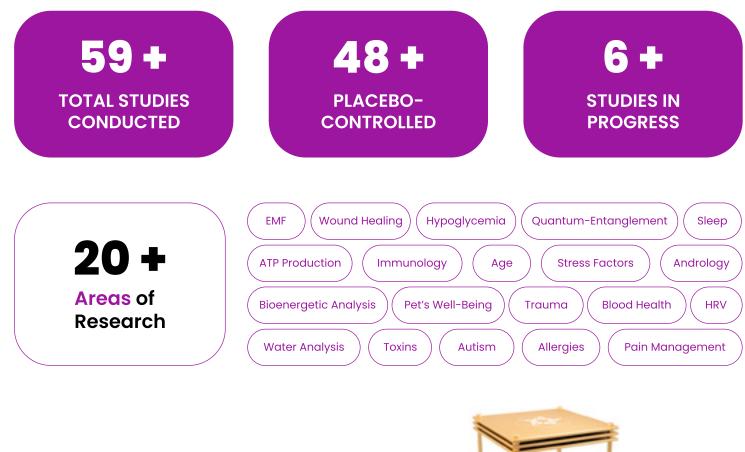
Her innovative fusion of physical therapy with an understanding of energetic dynamics has proven instrumental in caring for a diverse range of patients, from local families to elite NFL players in Tampa, FL. Dr. Leiva's nurturing capacity extends beyond her professional roles, as she embraces the titles of mother, wife, daughter, sister, yogi, and Doctor of Physical Therapy.

Her journey from a hospital bed to a successful practitioner is a testament to resilience and determination. At the Exerscience Center in Tampa, Florida, Dr. Leiva provides compassionate care, meeting every patient's needs with understanding and compassion.

Dr. Leiva's life and clinical work serve as an inspiration and beacon of hope for those seeking holistic well-being. She is also a captivating speaker, with multiple engaging topics to share. Recently, she was filmed for the Biohack Yourself Documentary, further showcasing her expertise and passion for Biohacking.



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Significant Findings:

- Improved Blood Health and Circulation
- Neutralizes Harmful Effects Of EMFs
- Improve HRV
- Increase ATP Production

- Acceleration In Recovery and Wound-Healing
- Improved Water Structure
- Section 2 Sec
- Optimized Energy Level

A New Era for Health 🌐 leelaq.com

Challenge Yourself

Put Your Lifespanning Knowledge to the Test

Which nootropic compounds have shown promising results in enhancing cognitive function and potentially extending lifespan?

- a) Bacopa monnieri and Lion's Mane mushroom
- b) Caffeine and L-theanine
- c) Rhodiola rosea and ashwagandha
- d) Ginkgo biloba and St. John's Wort

Which nootropic compounds have been linked to the enhancement of neuroplasticity, potentially promoting brain health and longevity?

- a) Modafinil and Adderall
- b) Phenylpiracetam and Aniracetam
- c) Melatonin and valerian root
- d) Kava and passionflower

What class of compounds mimics the ef-pan?fects of caloric restriction, promoting lon-gevity by activating cellular pathways asso-a) Inhibition of neurotransmitter reuptakeciated with increased lifespan?b) Activation of NMDA receptors

- a) Sirtuin activators and NAD+ precursors
- b) Antioxidants and vitamins
- c) Hormone replacement therapy
- d) Anti-inflammatory drugs and painkillers

Which therapeutic approach shows promise in lengthening telomeres, potentially contributing to increased lifespan?

a) Stem cell therapy and tissue regeneration b) Low-dose radiation therapy and chemotherapy c) Bloodletting and leech therapy d) Herbal supplements and acupuncture

Which mechanisms do certain nootropics utilize to exert neuroprotective effects, potentially contributing to increased lifespan?

Inhibition of neurotransmitter reuptake b) Activation of NMDA receptors c) Reduction of neuroinflammation and oxidative stress d) Induction of synaptic pruning



How to Remove the Ultimate Silent Killer

4

by Dr. Paul Savage

he word 'toxin' gets thrown around casually, but the reality is that we live in a toxic world. These harmful substances are in the air, food, and household products. Long-term exposure to even low levels of toxins is now linked to virtually every health condition ranging from cancer to autoimmune diseases. Understanding the types of toxins and their impacts on our bodies is the first step toward protecting our health. Let's define these toxins by categorizing them into three main groups:

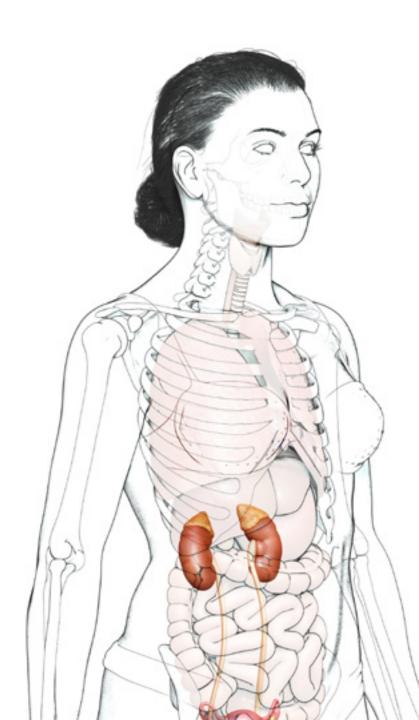
• **Biotoxins:** These are made by almost every type of organism: mycotoxins (made by fungi), zootoxins (made by animals) and phytotoxins (made by plants).

• Environmental Toxins: These lurk in the air, water, and soil. Pesticides, herbicides, heavy metals are prime examples.

• Industrial Toxins: This vast category encompasses thousands of human-made chemicals, ranging from plastics to cleaning products. Examples include forever chemicals (PFAs) and bisphenol A (BPA) and micro-plastics. Toxins are an inescapable part of our modern world, affecting even rural communities. An estimated 144,000 human-made chemicals, from pesticides to phthalates, pollute our environment. These toxins have now seeped into every inch of our environment.

Alarmingly, we can only test for a tiny fraction of these substances. This means countless chemicals contaminate our air, water, and food, with potential health consequences which we are only beginning to understand. Studies link toxin exposure to disruptions in our DNA, our cells, our metabolism, and our hormones.

While some chemicals have undoubtedly improved our lives, benefiting food production and technology, there is a significant downside. Estimates suggest toxins contribute to millions of premature deaths annually, including both acute poisoning and the gradual toll of chronic exposure. The World Health Organization states that as much as 24% of all deaths worldwide were attributable to pollution and harmful exposure to chemicals, among other issues. The effects of toxin buildup over decades can be devastating. Here is how they impact our bodies:



Hormone Havoc

• Certain toxins, known as endocrine-disrupting chemicals (EDCs), interfere with hormones' normal function. EDCs bind to hormone receptors, interfering with hormone production or altering hormone signals.

• This hormone disruption has significant implications for various bodily functions and is linked to reproductive disorders, developmental abnormalities, metabolic dysfunction, and an increased risk of cancer.

Cellular Chaos

• Toxins trigger a harmful overload of reactive oxygen species (ROS), also known as free electrons. These free electrons spin off inside our cells and cause damage to our DNA and proteins, recking havoc inside our cells (think pinball machines).

• Long-term damage cripples how cells function and contributes to aging, cancer, neurodegenerative disorders, and most chronic illnesses.

Immunity Interference

• Toxins weaken our immunity and make us more vulnerable to infections and chronic inflammation.

• Accumulation of toxins has been linked to autoimmune diseases by confusing the immune system so that it attacks you!

Toxins trigger a downward spiral. They weaken the immune system and damage DNA, disrupting the body's ability to cleanse and repair itself. This leads to further cellular damage, metabolic dysfunction, and hormonal imbalance, undermining our health, a vicious cycle indeed!



How Do You DETOX?

While emergency rooms can treat sudden, acute toxin exposure using methods like gastric lavage, activated charcoal, and even hemodialysis or plasma exchange, addressing chronic toxin exposure is more challenging. However, there are steps you can take to support your body's natural detoxification processes:

• Get Active: Regular exercise promotes sweating, improves circulation, and supports a healthy lymphatic system - all key for toxin elimination.

• Manage Stress: Healthy coping mechanisms reduce stress, which supports overall well-being and indirectly aids detoxification.

• Saunas: Consider routine sauna sessions for deep sweating and mental well-being.

• Plasma Donation: This removes toxins directly from the blood and offers the benefit of helping others.

• Herbal Supplements: Milk thistle, dandelion root, turmeric, and chlorella support detoxification, cellular health, and the immune system.

Unfortunately, these strategies are not nearly enough to reverse the buildup of toxins from years of exposure. This leaves a critical gap in our ability to protect our long-term health.

A Possible Solution

My understanding of chronic toxin exposure shifted after reading a 2022 study in which researchers used Therapeutic Plasma Exchange (TPE) to reverse aging biomarkers in humans. This report showed significant improvements in inflammation, oxidation, cancer

risk, Alzheimer's disease, and immunity decline. While the study attributed their success to the metabolic benefits of TPE, I intuitively knew that the improvements were due, in fact, to a thorough removal of toxins.

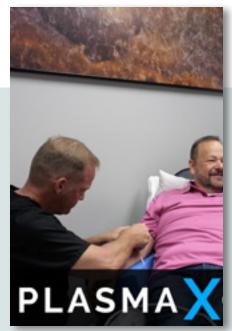


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Therapeutic Plasma Exchange

Blood is composed of red blood cells, white blood cells, and platelets suspended in a fluid called plasma. In addition to being the highway on which the cells travel, plasma is rich in essential nutrients like electrolytes, vitamins, and hormones. Plasma exchange is a medical procedure that removes a patient's plasma and replaces it with albumin, a protein found naturally in blood plasma. Your body generates new, healthy, clean plasma within a day or two. Think of it as an oil-change for humans.

TPE has been around for over 50 years and is commonly used in treating autoimmune and neurological conditions. The ability of TPE to reduce inflammation, improve cellular health, boost immunity, and even address markers of neurodegeneration holds immense promise for a wider range of applications. This makes TPE a powerful potential tool for tackling the long-term effects of toxin exposure and slowing the aging process itself.





The MDLifespan PlasmaXchange™ Protocol

At MDLifespan, we have developed a specialized TPE protocol to remove toxins. This protocol, which we are calling PlasmaXchangeTM, emphasizes safety, individualized treatment, and measurable results. We always begin by taking a thorough medical history of my clients to determine if they are candidates for TPE. Specific cardiac and neurological issues will restrict clients from participating. If we decide the client is a candidate for TPE, we perform a comprehensive assessment using blood and urine tests to quantify their toxin burden. Chronic exposure often goes unnoticed but can have significant long-term health impacts. A personalized PlasmaXchangeTM treatment package (1, 3, or 5 TPE sessions) will be recommended. Each session is scheduled at one-month intervals, and each TPE appointment lasts 2-4 hours.

After you get the TPE, my team administers an infusion of essential vitamins, minerals, and amino acids to support cellular recovery and detoxification. We also place clients on daily oral supplements, which will further optimize their detoxification pathways between sessions. A few weeks after all the treatments are completed, we repeat blood and urine tests to compare toxin levels and key biomarkers, ensuring the protocol's efficacy in reducing the overall toxin load. The results we have seen so far are, well, simply extraordinary.

PlasmaXchange™ Protocol Results

Testing patients for toxins for 25 years, I've witnessed firsthand the alarming truth: everyone carries a toxin burden, increasing yearly nationwide. The most common toxins include:

• Glyphosate (Roundup): This widespread herbicide burns everything it touches. Glyphosate is linked to certain cancers and cellular damage.

• Lead: Even low-level lead exposure harms brain development and the nervous system.

• **BPA:** This chemical, in many plastics, disrupts hormones, affecting fertility and increasing the risk of cancers.

• **Mercury:** Mercury contamination has far-reaching consequences, causing cognitive problems and neurological dysfunction.

• Arsenic: Exposure to this toxic element is associated with severe health conditions like cancer, heart disease, and diabetes.

Recognizing the need to tackle this widespread issue, my team and I designed a protocol to address the problem directly. The PlasmaXchangeTM protocol is the answer to reducing the body's toxic load. Initial results have been extraordinary.

Heavy Metals

• Arsenic and Mercury decreased between 50-60%

• Lead decreased by 85%

Aluminum decreased by 100%
Environmental & Forever Chemicals
Pesticides decreased by 60%

• Phenols, including BPA, de-

creased by 65%Herbicides, including Atrazine

and Glyphosate, decreased by 75%

• Phthalates decreased by 99% Health Biomarkers

• Oxidation decreased by 50%

 \bullet Cellular senescence decreased by 77%

• Inflammation markers decreased by 95%

• Immune system function showed an increased by 100%

Importantly, the benefits of TPE extend far beyond the immediate treatment. Clients continue to demonstrate significant improvements weeks, even months, after their final session, and our ongoing data collection indicates these positive changes may be long- lasting.

It is worth noting that these results are seen in patients following the PlasmaXchange[™] protocol. Patients who received only therapeutic plasma exchange (TPE) sessions did not see the same results. This protocol strategically combines TPE with IV therapy, targeted oral supplements, and lifestyle modifications. While TPE alone offers some benefits, our protocol enhances and amplifies the results.

Beyond these measurable improvements after TPE, our clients have reported:

- Improved energy
- Less joint and muscle pain
- Improved mood
- Decreased fatigue
- Improved mental clarity
- Improved sleep
- Better recovery from exercise

Therapeutic Plasma Exchange marks a turning point in how we understand and address chronic toxin exposure. This breakthrough treatment appears to fundamentally improve health outcomes. The reality is that toxins permeate our modern world, subtly eroding our health over time. They contribute to major diseases like cancer, heart disease, Alzheimer's Disease, neurodegenerative disorders, and more.



While TPE may not yet be widely accessible, it is imperative that we acknowledge the profound threat posed by toxins. Dismissing concerns about these substances is dangerous. We need more research, broader awareness, and increased access to therapies like TPE. This is not merely a trend but a vital step towards protecting our health - both now and for future generations.

For more information on toxins and how to remove them, visit

mdlifespan.com/biohackersmag to download your free copy of our Get MDL Clean guidebook.



Dr. Paul Savage



IG: <u>@mdlifespan</u>

At 37 years old, Dr. Paul Savage was a successful ER/trauma physician. But he was unhealthy, weighed 270 pounds, smoked cigarettes, was tired, anxious, and unwell, and had high cholesterol, high blood pressure, pre-diabetes, and stress.

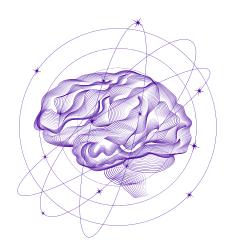
Rejecting the conventional approach of more medications, his curiosity and determination led him to explore various treatments and lifestyle changes—and transform his life and career through precision medicine.

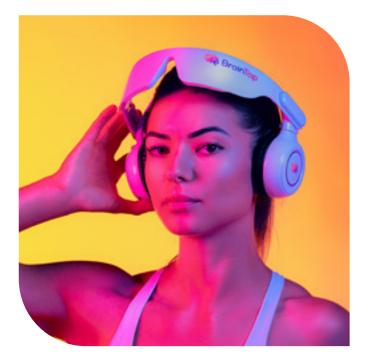
Twenty-five years later, he's an advocate for combining traditional and integrative medicine, focusing on an evidence-based approach that treats patients as partners. Dr. Savage embraces a continuous pursuit of knowledge and integration of the latest medical advancements into his practice, with several board certifications, including certifications from the Stem Cell Fellowship, Integrative Metabolic Medicine, and the American Academy of Anti-Aging Medicine. Not to mention he built over 50 clinics across the United States and literally wrote the code for the industry standard software that has helped millions of patients.

Dr. Savage is now the founder and CEO of MDLifespan. His latest endeavor of the patented PlasmaXchange[™] protocol is the culmination of years of expertise — it's poised to be the defining moment of his career, a transformative movement that will reshape the future of medicine as we know it.



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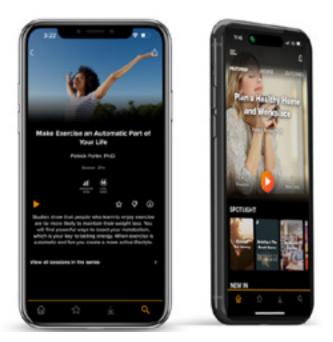
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THYMOJIN ALPHA 1: A CRUCIAL PEPTIDE FOR ALL

BY DR EDWIN LEE

Thymosin Alpha 1 (Ta1) has been a topic of intense medical research due to its potent immunomodulatory effects. Initially identified in the 1970s, this small peptide has shown promise in treating a variety of conditions, including viral infections, cancer, and autoimmune diseases. Despite its significant potential, recent regulatory changes threaten its availability, underscoring the need for continued advocacy and research.

THE CRUCIAL ROLE OF TAI IN MEDICAL TREATMENT

Ta1 is derived from thymus tissue and has been used worldwide to enhance immune responses in diverse diseases. It has been particularly effective in combating severe viral infections like COVID-19, hepatitis, and even in cancer therapies, where it has demonstrated efficacy in reducing mortality and enhancing the effectiveness of other treatments. The peptide's ability to modulate the immune system makes it a valuable asset in the medical field.

RECENT REGULATORY CHALLENGES AND CLINICAL IMPLICATIONS

Despite its proven safety and efficacy, Ta1 faces significant regulatory challenges. In 2023, the FDA restricted its use along with other peptides, citing concerns that need further clarification given the extensive data supporting Ta1's safety. This decision has significant implications for patients relying on this peptide, potentially driving them towards unregulated sources and compromising safety.

OLINICAL EVIDENCE SUPPORTING TA1

Extensive clinical trials involving over 11,000 subjects have demonstrated the safety and efficacy of Ta1. Studies have shown its ability to enhance immune responses without severe side effects. Its application has ranged from treating chronic infections and cancer to modulating immune responses in autoimmune conditions. The peptide's versatility in treating a broad spectrum of diseases highlights its importance in clinical settings.

THE NEED FOR ADVOCACY AND POLICY CHANGE

Given the overwhelming evidence supporting Ta1's benefits, it is crucial for healthcare professionals and researchers to advocate for policy changes. The current FDA restrictions limit patients' access to a treatment that has shown exceptional results in clinical trials. Advocacy efforts should aim to ensure that Ta1 remains available through prescription and that compounding pharmacies can continue to produce it safely under FDA guidelines.

CONCLUSION

Thymosin Alpha 1 is more than just a treatment; it represents a potential paradigm shift in how we manage diseases involving immune dysregulation. The peptide's ability to significantly improve patient outcomes in a safe manner argues strongly against its unwarranted regulatory restriction. Moving forward, it is imperative that the medical community, policymakers, and researchers collaborate to keep such vital treatments accessible to those in need, ensuring that Ta1 can continue to save lives and improve the quality of life for patients around the world.



CALL TO ACTION

To protect the future of Ta1 and similar peptides, continued research, public awareness, and regulatory advocacy are essential. We must promote a balanced approach that considers both the therapeutic potential of these treatments and the need for regulatory oversight to safeguard patient health.

Here is a link for anyone to donate to help save peptides. It is a non for profit organization, <u>Save-</u><u>Peptides.org.</u> The money will go for USP monographs for the peptides, research studies and more. Donate to Save Peptides from the FDA, organized by Edwin Lee

SAVE THE PEPTIDES! -SCAN CODE NOW!





Dr. Edwin Lee

Dr. Edwin Lee is a board certified endocrinologist, author and international speaker. Dr. Lee founded the Institute for Hormonal Balance, Orlando, FL in 2008, and has completed special training in Regenerative and Functional Medicine. He is a graduate of the Medical College of Pennsylvania and finished his 2 fellowships (Critical Care and Endocrinology) at the University of Pittsburgh. He is the author of many books and the latest one is The Fountain of Youth with Peptides.

Dr. Lee is passionate on saving peptides from the FDA. He recently published a comprehensive review of the safety and efficacy of Thymosin Alpha 1 to save it from the FDA. Currently, Dr. Lee is a co-founder of Clinical Peptide Society and also stated a non-for-profit organization <u>SavePeptides.org</u> to save peptides from the FDA.

BLUNDERS

KEY MARKETING STRATEGIES

by Inna Olefirenko



iohacking has exploded onto the wellness scene with a revolutionary vision of optimal health and human performance through personalized experimentation. With a growing interest in self-improvement and a market increasingly saturated with products and services, biohacking brands face a challenge in standing out and resonating with the community. Marketing in this niche requires nuance and precision; it's not just about making noise but about crafting a message that reflects the values and aspirations of the biohacking community.

This article will dissect the top 10 mistakes biohacking brands typically make in their marketing strategies and offer actionable advice to correct them.

Mistake #1: Lack of Community Engagement

Many biohacking brands have pretty large social media followings but often overlook engagement opportunities. Reposting customer stories or product endorsements on Instagram is not a substitute for fostering a sense of community.

The Solution: To create meaningful interactions with your community, try asking open-ended questions, requesting feedback, and responding to comments. You can also engage with your audience through regular Q&A sessions, live chats, or webinars. This kind of genuine dialogue can help you build a loyal following and benefit from the power of community advocacy.



Mistake #2: Overhyping Without Explanation

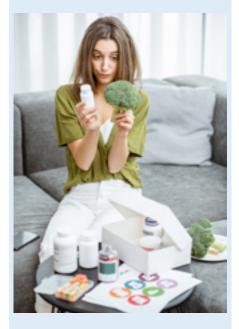
In their rush to capitalize on the growing interest in biohacking, some brands push their products without offering the substantial educational content that biohackers deeply value. This audience is inherently curious and eager to learn; they seek to understand the science and methodology behind biohacking practices.

The Solution: Use evidence-based marketing strategies to explain the science behind your products. Provide blog posts, white papers, and case studies that simplify ideas into easily understandable information. Empowering customers with knowledge helps establish trust and credibility for your brand.

Mistake #3: Making Unsubstantiated Health Claims

Making vague or unverifiable health claims is a surefire way to lose consumer trust. Misleading advertising can damage your reputation and lead to regulatory issues.

The Solution: Maintain transparency and accuracy in your marketing efforts. Only make claims supported by research or accepted scientific principles.



Mistake #6: No Visual Storytelling Many brands focus solely on textbased content, neglecting the power of visual storytelling to captivate their audience.

The Solution: Use high-quality images, infographics, and videos to tell the story of your brand and products. Visual content is more likely to be shared and remembered, and it can simplify complex concepts. Mistake #4: Adopting a 'One Size Fits All' Approach

Biohackers range from novices seeking to improve their health through basic biohacking techniques to advanced practitioners experimenting with cutting-edge technology and supplements. Treating this varied group as a homogeneous audience overlooks its members' unique needs, preferences, and knowledge levels, reducing the effectiveness of marketing efforts.

The Solution: Customize your marketing efforts to emphasize the flexibility and personalization of your products. Share success stories from demographics. Encourage users to share their own experiences. Mistake #5: Neglecting Cross-Disciplinary Opportunities

Biohacking involves combining knowledge and techniques from different fields such as biology, technology, nutrition, and psychology to improve human potential. However, many brands limit their progress by working independently in their respective fields. This results in missed opportunities for innovation that can only be achieved through cross-disciplinary collaboration.

The Solution: Actively seek and foster collaborations with experts and organizations across different disciplines. By partnering with professionals in fields like nutrition, fitness, neuroscience, and even digital technology, brands can enrich their offerings and enhance their credibility.



Mistake #7: Not Leveraging User-Generated Content

User-generated content (UGC) has become an invaluable brand asset, offering authentic insights and testimonials that resonate with potential customers. Many biohacking brands, however, need to capitalize on the power of their community's experiences, missing out on this rich source of engagement and authenticity.

The Solution: Brands should encourage users to share their biohacking journeys, successes, and challenges, leveraging these stories across their platforms. User testimonials, progress reports, and real-life case studies can significantly enhance a brand's authenticity and relatability.

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Mistake #8: Prioritizing Sales Over Education

When brands focus too heavily on sales pitches and neglect the educational aspect, they fail to engage this knowledgeable audience effectively, potentially damaging trust and credibility.

The Solution: Become a thought leader within the biohacking community. This involves investing time and resources into creating and sharing well-researched content that goes beyond surface-level information. This approach builds trust and establishes the brand as a reliable source of information, encouraging loyalty and long-term engagement. Mistake #9: Failing to Innovate

In the fast-evolving world of biohacking, resting on laurels can be the downfall of even the most established brands. The pace at which discoveries and methodologies are being introduced means that yesterday's innovations can quickly become today's expectations.

The Solution: Brands must embed a culture of continuous innovation within their DNA. This involves staying abreast of the latest scientific research, technological advancements, and community experiments and using these insights as a springboard for product development. Mistake #10: Disregarding Ethical and Environmental Considerations

Brands involved in biohacking that ignore environmental issues in their marketing risk alienating a portion of their audience that prioritizes sustainability and accountability.

The Solution: Incorporate environmental messaging that showcases your brand's dedication to these values. Emphasise methods, eco-friendly packaging, and the ethical sourcing of materials. Share your contributions to the community and environment.

Takeaways

By aligning your brand with the shared values and aspirations of the biohacking community, you not only enhance credibility but also build meaningful, long-lasting partnerships. Celebrate the human element in every campaign and show how biohacking can profoundly shape lives and the broader health landscape. Turn innovative visions into reality.





wellnesslemon.com

Inna Olefirenko

Inna has spent over five years in wellness marketing, helping companies ranging from fresh startups to multimillion-dollar enterprises. Driven by her dual passions for marketing and wellness, Inna has now channeled her expertise into her own venture, Wellness Lemon, a boutique marketing agency dedicated to supporting brands in wellness, biohacking, and spirituality. At Wellness Lemon, we understand that biohacking is about embracing individuality and the power of personal transformation. With our deep expertise in marketing for wellness, biohacking, and spirituality brands, we are dedicated to helping you communicate authentically and educate effectively. By founding Wellness Lemon, we aim to empower wellness brands to achieve and surpass their goals, transforming businesses just as they transform lives.

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HONORING OUR HEROES



The 2024 Grey Team "They Are Not Bulletproof" Gala held at The Boca Raton on April 4th, 2024, was nothing short of extraordinary. Let me paint a vivid picture of this incredible evening:

As the sun dipped below the horizon, attendees gave their cars to the valet, walked past, and posed with the United States Marines and the U.S. Army, standing next to their battle-ready Humvees. Once inside the elegant doors of The Boca Raton, a rich cocktail party was in full swing with tables strewn with every auction item imaginable, from tactical firearms to fine-dining experiences and sports memorabilia. As the guests were slowly moved into the enormous grand ballroom, they were instantly transported into an authentic setting of an American military base in Afghanistan, complete with helicopters, sandbags, and barbed wire. The air buzzed with anticipation, and the room sparkled with lanterns casting warm light upon the guests.

Veterans, dignitaries, active-duty soldiers, and supporters mingled, their hearts united by a common purpose: to honor those who had selflessly served our nation. The room echoed with stories of cour-



age, sacrifice, and resilience. Each attendee wore their pride like a badge of honor, and the camaraderie was palpable.

The stage became a sacred space as Lt. Col. Allen West stepped up to the podium. His unwavering and resolute voice recounted tales of heroism and the indomitable spirit of our military. Tears welled up in the eyes of many as they listened to firsthand accounts of bravery and brotherhood.

The gala's entertainment was a symphony of gratitude. Two live bands provided the music; one

was made up of severely combat-wounded soldiers, and Marines played soul-stirring melodies, and the room swayed to the rhythm. The lyrics spoke of resilience, hope, and their unbreakable bond. It was as if every note carried the weight of countless sacrifices.

Each table centerpiece was composed of a guard tower, complete with an authentic military camp name—a symbol of remembrance. Guests whispered the names of fallen comrades, their fingers tracing the rough wood. The room fell silent as we collectively honored those who couldn't be with us that night as a lone Marine Corps bugler played Taps.

The gala wasn't just a local affair; it resonated nationwide. Social media buzzed with posts, and people from different corners of the country joined virtually. Donations were poured in, ensuring that the Grey Team's mission would continue to thrive.

Strangers became friends, and friends became allies. Business cards exchanged hands, promises to collaborate were made, and partnerships were forged. The gala



wasn't just about celebrating the past—it was about shaping a better future for our veterans.

As the evening drew to a close, the room glowed with a sense of purpose. The funds raised that night would empower veterans through Grey Team's "Operation Phoenix." Lives would be transformed, wounds healed, and hope reignited.

And so, under the star-studded Florida sky, we raised our glasses to resilience, to those who wore the uniform, and to the unwavering spirit of the Grey Team. The 2024 gala was more than an event—it was a beacon of hope, a promise kept, and a testament to the unyielding strength of our military family.

Thank you, Grey Team. Thank you, veterans. You are not bulletproof, but your courage is impenetrable.

Find Out More @greyteamhq









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- Dr. Neil McLaughlin



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A JOURNEY INTO THE WORLD OF PSYCHEDELIC MEDICINE

n a world where conventional medicine sometimes falls short, a new frontier is emerging in the realm of mental health and consciousness exploration: psychedelic medicine. To delve deeper into this fascinating field, I had the privilege of interviewing Dr. Manesh Girn, a prominent figure in the psychedelic research community. With a background in neuroscience and a passion for understanding altered states of consciousness, Dr. Girn is at the forefront of unlocking the therapeutic potential of psychedelics.

A Brief Introduction

Dr. Manesh Girn's journey into the world of psychedelics began with a profound fascination for altered states of consciousness and their potential for transformation and healing. Armed with a PhD in neuroscience, Dr. Girn's research focuses on unraveling the mysteries of the brain under the influence of psychedelics, particularly psilocybin, the active compound found in magic mushrooms.

Dispelling Myths and Misconceptions

One of the most pervasive myths Research has also found that chalsurrounding psychedelics is the fear of losing control or having a "bad trip." However, Dr. Girn emphasizes that the nature of psychedelic experiences is highly context-dependent. In controlled settings, where individuals are properly prepared and supported by trained guides, psychedelics can induce profound spiritual experiences, personal insights, and emotional healing with a relatively low risk of harm.

lenging experiences actually often have beneficial effects when individuals are supported in finding a resolution to what comes up. All of this said, it's important to note that individuals with a personal or family history of schizophrenia are excluded from studies due to heightened risks in this population. It also bears mentioning that psychedelics are not for everyone, and not everyone benefits from psychedelic therapy.

The Therapeutic Process

In clinical settings, psychedelic therapy typically involves three stages: preparation, the drug session, and integration. Preparation involves educating participants about the effects of psychedelics, setting intentions, and building rapport with guides. During the drug session, individ-

uals embark on an inner journey while supported by therapists who are there to help the psychedelic experience unfold organically, rather than taking an active role. Finally, integration sessions help individuals process their experiences and translate insights into tangible life changes.

Promising Results and Future Directions

Dr. Girn shares compelling anecdotes of individuals experiencing profound breakthroughs during psychedelic therapy, from healing deep-seated traumas to gaining new perspectives on life. These anecdotes reflect common experiences of patients in psychedelic clinical trials, wherein many patients experience lasting relief from symptoms of depression or other conditions following only one or two drug sessions. With ongoing research and a growing body of promising clinical trials, the future of psychedelic medicine looks bright. In states like Oregon and Colorado, where psilocybin therapy centers have been approved, the path towards legalization and widespread acceptance is becoming increasingly likely.



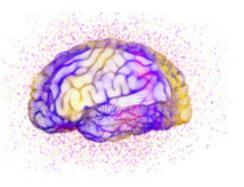


Safety and Side Effects

Contrary to popular belief, psychedelics are non-toxic and non-addictive. However, they do pose psychological risks, particularly in uncontrolled settings. Proper preparation, screening, and therapeutic support are essential to mitigate these risks and ensure safe and beneficial experiences. Dr. Girn emphasizes that psychedelic therapy is very different from how psychedelics are typically consumed recreationally.

Microdosing and Neuroplasticity

While microdosing—taking sub-perceptual doses of psychedelics—has gained popularity, the scientific evidence remains mixed on whether it is truly better than placebo. However, Dr. Girn highlights that emerging evidence suggests that it may be helpful for mental health conditions such as depression and anxiety. Research also tells us that psychedelics potently increase neuroplasticity to support lasting changes in our mind and brain, something that can be complemented by supplements and healthy habits.





The Future of Psychedelic Medicine

As psychedelic research continues to advance, Dr. Girn envisions a future where psychedelics play a prominent role in psychiatry and mental health care. With their unique ability to catalyze profound experiences and facilitate lasting transformations, psychedelics offer new hope for individuals struggling with treatment-resistant conditions.

Conclusion

In conclusion, the field of psychedelic medicine represents a promising frontier in mental health care. Led by pioneers like Dr. Manesh Girn, researchers are uncovering the therapeutic potential of psychedelics and revolutionizing our understanding of consciousness and healing. As stigma fades and legal barriers are dismantled, psychedelic medicine may soon take its place alongside conventional treatments, offering new avenues for growth, healing, and self-discovery.

Resources for Further Exploration:

- Webdelics
- Psychedelic Review
- Blossom Psychedelic Insights

To stay updated on the latest research and insights in psychedelic science, follow Dr. Manesh Girn on YouTube and Instagram. You can also learn more about him on his personal website.

As we embark on this journey of exploration and discovery, may we approach it with open minds and compassionate hearts, embracing the potential for transformation and healing that psychedelic medicine offers to all.

Disclaimer: The views expressed in this article are those of the interviewee and do not necessarily reflect the views of Biohackers Magazine.





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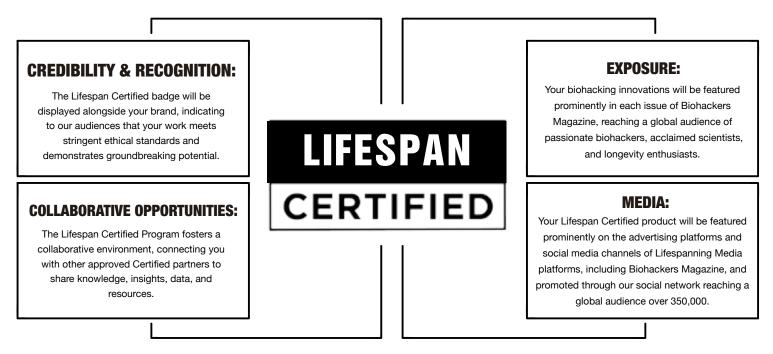
Dr. Manesh Girn

Dr. Manesh Girn is a postdoctoral neuroscientist and popular science content creator specializing in the neuroscience of psychedelic drugs. He currently works at the University of California, San Francisco, alongside psychedelic research pioneer Dr. Robin Carhart-Harris, where he conducts research on the neural mechanisms underlying the psychedelic experience and psychedelic-assisted psychotherapy. He has been lead or co-author of over 20 peer-reviewed publications to date on topics including psychedelics, the default mode network, abstract cognitive processes, and brain network organization. In addition to his research, Manesh runs a popular digital platform on Instagram and YouTube called "The Psychedelic Scientist", where he shares the latest findings in psychedelic science in a digestible and easy to understand way. Finally, Manesh serves as the Chief Research Officer at EntheoTech Bioscience, a pioneering Canadian bioscience company focused on psychedelic-assisted psychotherapy and multidisciplinary mental health solutions

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SCRET MINCER The Science of Hyperbaric Oxygen Therapy Part 1



an Hyperbaric Oxygen Therapy improve healing, and potentially extend life? Can it improve your quality of life during the process? The current findings indicate it has truly exciting potential!

First we'll explore the history of Hyperbaric Oxygen Therapy or 'HBOT' and how it can potentially improve your health and quality of life. Plus when you may not want to use it. (1)

Next I visit a local HBOT center and talk with Dr. Arthur Annis about the 'real world' applications. Dr. Annis is an expert in HBOT applications and shares his personal experiences using HBOT for dealing with traumatic brain injury. (2)

Then I try an HBOT session myself, and share my thoughts and personal experience with it.

Finally we cover areas to consider for integrating this into your health practices.



What is Hyperbaric Oxygen Therapy - and How Can It Help Me?

Hyperbaric Oxygen Therapy (HBOT) is a medical treatment that involves being in a pressurized chamber while typically breathing either pure oxygen, or alternating breathing pure oxygen and normal air. Depending on the type of treatment, the air pressure in the chamber can increase up to 3 times higher than normal atmospheric pressure. (3)

You need to have the guidance of a qualified health professional to participate in HBOT. I want to emphasize that we're not providing any medical advice here. This is just to give you information so you may consider exploring this further with your health care pro-

Oxygen Therapy vider at a HBOT center.

Fundamentally HBOT increases the concentration of oxygen dissolved in our blood. This causes changes in how our blood vessels dilate and contract, depending on many variables. Typically this allows higher levels of oxygen to tissues in areas of our body that normally don't get much oxygen. It also modulates our immune system, and in some cases causes increased blood vessel growth.

Increased oxygen also causes increases in various oxygen free radicals. While our body has the ability to compensate for this, most anaerobic bacteria don't and can be killed. This increases the



chances of clearing infections and wounds that haven't responded to treatment well.

The increased oxygen also can cause an unexpected reaction. Initially, our mitochondria (cellular power plants) produce less energy (ATP). But later our mitochondria tend to rebound and produce more ATP. The assumption is that with more energy (ATP), our cells and tissue can better repair. Numerous studies stressed the importance of having multiple treatments to enhance ATP production. (4)

Originally HBOT was used to treat, and has been found effective for various medical conditions, including 'the benz' or nitrogen narcosis scuba divers can get if they surface too quickly. As well it is used to help heal burns, infections from anaerobic bacteria, bed sores, diabetic sores that won't heal, as well as helping with traumatic brain injury, and other neurological conditions. (5)

More recently it's been found to have potentially profound benefits for improving sports performance, slowing signs of aging, improving mood and many other areas of interest to the Biohacking Community.



How Was Hyperbaric Oxygen Therapy Discovered?

Hyperbaric oxygen therapy (HBOT) has roots dating back to 1662, when Dr. Henshaw, a British physician first developed hyperbaric therapy. However, utilizing pure oxygen it wasn't available until much later, which introduced new problems people didn't understand at the time. Sometimes this included unexpected onset of seizures, and other challenges. (6)

Then in 1878 a French psychologist named Paul Bert, was able to

therapy document the potential toxic efback to fects of using ONLY pure oxygen a British on the central nervous system. yperbar-He is considered the "Father of Hyperbaric Physiology" from his till much research on these issues to imw prob-

> Later in the early 20th Century HBOT became more widespread for the treatment of decompression sickness (also called "the benzs") in divers. Over the years, further potential therapeutic bene

fits of HBOT were found, in wound healing, carbon monoxide poisoning, neurological disorders, radiation injuries, and other applications. (8)

More recently, there has been a great deal of interest in the possibility of HBOT improving the status of both long Covid-19 (9), helping people with Covid-19 related neurodegenerative issues, (10) and possibly helping people recover from myocarditis related to Covid-19 (11)

However that area of study is new and needs to be repeated on a larger scale.



When Should You Not Have Hyperbaric Oxygen Therapy?

HBOT is generally well tolerated by most people. However, it's important to have a qualified healthcare provider to make sure HBOT is right for you.

The most common challenge is if you've recently had a cold and the eustachian tubes in your ears aren't clear. The eustachian tubes run from the middle ear to the throat and allow your ears to equalize pressure. Blocked eustachian tubes can cause pain, or possibly damage to the eardrum and

HBOT is generally well tolerated middle ear because it can't adjust by most people. However, it's im- to the increased pressure. (1)

Some other issues - but not all include if you have a collapsed lung (or history of that happening), certain types of asthma, high fever, certain types of cancer, are pregnant, have certain heart issues, or are taking certain medications. Your health care provider needs to review your health history with you before considering HBOT. (12) Finally if you are claustrophobic,

HBOT may not be for you. (13)

Benefits for Sports Performance

More recently HBOT has attracted a great deal of interest for sports performance and recovery. There aren't extensive publications on HBOT for performance improvement. But the ones that have come out are compelling. (14) (15) (16)

Benefits include:

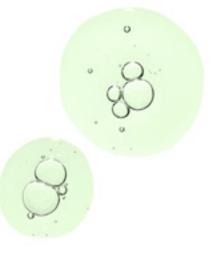
Enhanced recovery potentially leading to quicker recovery times and improved overall performance. (17)

Improved endurance while this would seem paradoxical, it has been reported by athletes. (17)

Accelerated injury healing allows athletes with injuries to return to training and competition sooner. (17)

Reduced muscle soreness and inflammation allows athletes to recover faster from more intense workouts. (17)

Use of Hyperbaric Oxygen Therapy has become well accepted in professional sports teams and elite athletes. (17)





Benefits for Overall Health and Longevity

recently been found to improve many areas related to aging.

While the research is limited, it shows tremendous potential to improve our health, potential lifespan, and quality of life.

Various studies have shown HBOT can help with the following:

Skin health has been shown in some studies to improve after HBOT. HBOT appears to both enhance collagen production and stimulate growth of new skin cells (18) as well as help reduce the effects of photoaging (sun damage) in the skin. (19)

Reducing oxidative stress and inflammation. As we get older, our systemic levels of oxidative stress increase. HBOT appears to cause an upregulation of our natural antioxidant enzymes. (20)

This may help slow both the symptoms of aging, as well as possibly the aging process itself. (21)

Development of new blood vessels. One challenge as we get older is we lose part of the circulation in our tissues. HBOT in many cases appears to stimulate angiogenesis, or growth of new blood vessels. (22)

Increased energy. As we age, our mitochondria (cellular power plants) ability to make energy

Hyperbaric Oxygen Therapy has (ATP) in our cells level is reduced. Having multiple HBOT sessions often upregulates both ATP production and generation of new mitochondria. (23) (24)

> Improved Insulin Sensitivity. A randomized, placebo controlled, crossover trial found that HBOT improved tissue insulin sensitivity in type 2 diabetic patients. (25)

> Improved cognitive function: One of the fears of getting older is memory loss, ability to think and overall cognitive decline. Studies have shown HBOT may improve cerebral blood flow, promote neurogenesis (the formation of new neurons), and reduce inflammation in the brain. (26) (27) (28) (29)

> Slowed telomere shortening - and apparent restoration of telomere **length.** A key indicator of aging is our telomere length. Telomeres are protective caps at the ends of chromosomes that shorten with each cell division, and are associated with cellular aging. Numerous preliminary studies indicated that HBOT may not only slow down telomere shortening, but with time promote telomere lengthening. (30)

> While these potential benefits are exciting, it's important to remember that this field is new and additional study is needed.

Hyperbaric Oxygen Therapy in the Real World

I wanted to find out what the process was actually like. Fortunately I knew Dr. Arthur Annis who runs a HBOT center at Myrtle Grove Chiropractic, where I live in North Carolina. (2)

Dr. Annis began HBOT out of a personal health need. While driving home from work one day he was rear ended. Initially he thought he was fine, but soon noticed concerning symptoms that corresponded to Traumatic Brain Injury (TBI). Unfortunately that was the case and he now had to deal with a demanding schedule and this disabling condition.

Rather than accepting this fate, he began seeking out possible solutions. Fortunately he learned how HBOT had helped Football Legend Joe Namath make a dramatic recovery from TBI. (31)

After doing more research, he found there was solid research

supporting HBOT being profoundly helpful for TBI. (32)

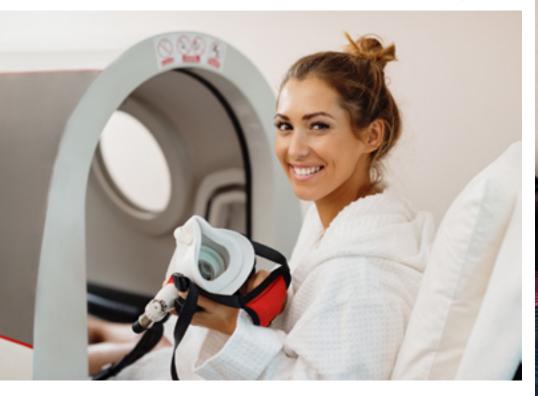
So he decided to get an HBOT system and learn how to use it.

With just a few HBOT sessions he noticed improvement. Other diagnostic tools used in his office indicated quantifiable improvements in his cognitive abilities.

The day I visited we first discussed HBOT and my health background. In an earlier email, out of curiosity I asked if he had considered using a BrainTap system during HBOT. Which interestingly he did and offered for me to try a BrainTap session during the HBOT process. (33)

Unfortunately, I don't have enough time here to go into the details of our conversation But if you'd like to know more you can go to

www.himassager.com/interviews for a video of our meeting, plus me





What is an HBOT Session Like?

in the HBOT system It's recom- tom of a pool. mended you wear comfortable clothes. It's a good idea to go to the bathroom first also. Next you climb into the system.

The health care provider, in this case Dr. Annis explains the different controls inside, including how to adjust the temperature. Plus the release control that will allow you to slowly decompress and exit if you need to.

Finally he handed me an oxygen mask and instructed me how to connect the mask tube to the oxygen feed. There's a protocol for alternating breathing oxygen and normal air which optimizes your benefits.

I was set to go and had the Brain-Tap. (33) But, after initially getting in I decided to get out and to the restroom.

Then he closed the chamber and slowly began pressurizing it. After it got to pressure I realized unfortunately I left the BrainTap unit (33) out on the bench, so I'll have to see what that experience during HBOT is like at a later time.

Dr. Annis advised me to frequently close my mouth while pinching my nose and blowing out to help keep the pressure in my middle ears balanced.

It took a little while to get used to it, which is a feeling like you get when you swim close to the bot-

After reaching pressure, I set my phone timer to follow the protocol for breathing oxygen.

However if someone was claustrophobic, they might want to try just getting in and seeing how they feel before doing a session.

I'm not claustrophobic, but it was helpful knowing I have the ability to decompress and get out if I needed to.

The process was very relaxing and time went by faster than I thought. After the hour-long treatment, Dr. Annis began the process of slowly depressurizing the chamber. During that my ears did pop quite a bit. It was sort of like the reverse of what you experience going on a plane.

I can clearly understand why it's important to not have any head colds or issues that could interfere with your eustachian tubes working to balance the pressure in your ears. For me, my ears continued to pop for quite a while after. But apparently people quickly get used to that.

I was told that odds were I wouldn't feel any effects from just one session. But I did sleep really well that night and was unusually hungry the next morning. So I suspect it had an impact on my metabolism. I also felt like I could think

Is Hyperbaric Oxygen Therapy For You?

much more clearly the next day. I would say it depends on your health goals, plus how much you can budget for your health.

It's important to also talk with your healthcare provider about options.

The cost is a factor, especially if it's not covered by insurance. Prices for treatments will vary in different areas, but can range between \$90 to over \$1000 for a single session.

You also need to understand that there are many different types of hyperbaric oxygen therapy solutions. However, they can be grouped into two categories.

The original systems are 'HBOT' which means chambers that apply more than 1.3 ATM (atmospheres of pressure on you). That being said, some medical systems go up to 3 ATM. They require a hard enclosure and usually take longer for both the compression, and decompression cycle. They are what the majority of the research cited here was done with. They also require more training for those operating them. They're typically the most expensive.

A newer option is the 'mild HBOT' or mHBOT systems. They typically have a soft, often flexible shell that seals with a special zipper, and only go up to 1.3 ATM. The fewer benefits have been confirmed by studies of mHBOT. But the sessions are easier as far as the pressurization and depressurization. Plus they tend to be less expensive.

Dr. Annis offers the traditional HBOT (at 1.6 ATM) treatment which is normally significantly more expensive. I was impressed that he keeps his prices as low as possible. I think he wants to truly help as many people as possible. However, many locations are several times what his center charges.

As far as price, in most centers you can get a significant discount if you purchase multiple sessions at one time, which is a great option.

For that though, I'd suggest first trying a single session and see how you like it to make sure you're comfortable with the process. Then, as long as you are, it makes more sense to commit to multiple treatments because based on the studies, that's where you get the real benefit.

As far as the cost, one thing people usually overlook is just how important their health is.

You really can't do much in life without good health. We often don't think about that until we've lost it.

So, if you have a condition, or health area you want to improve that HBOT may help with.

Meet Researchers Who "Rolled Back Their Biological Clock" More Than 10 Years



It's worth considering.

In a follow up article next month I interview Dr. Joseph Dituri about his experiences, and results. Last year Dr. Joseph Dituri broke a world record by living underwater for 100 days. Some aspects of his 'biological age' were rolled back by 10 years, and for a few 20 years.

Then you learn about Dr. Joseph Maroon, an 83 year old MD who increased his telomere length by 100% after having 200 HBOT sessions.

BXOHACKERS

Their results will shock you. **References**:

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About Drs Wendy & Steve McGough, DHS

Wendy & Steve are the founders of Women & Couples Wellness. Over the past 14 years, they've worked with several thousand women and couples facing challenges ranging from pelvic health to intimacy to fertility. They hold doctorates in human sexuality from the IASHS, focusing on clinical sexology. Wendy's background is in psychology from Ohio State, while Steve's background includes a BS in nutritional biochemistry at UNC-Chapel Hill & neuroscience research at Wake Forest School of Medicine. They're the creators of the hi[®] massage system & hold 6 US/Int Patents for women's pelvic health solutions. They work closely with urologists, pelvic floor physical therapists & fertility specialists.

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Unlock Spinochrome Superpowers

Dr. Tamara Rubilar



n our pursuit of vibrant and healthy living, we frequently overlook the incredible treasures found beneath the ocean's surface. Among these treasures are spinochromes, the sea urchin's pigments, small yet potent antioxidants found exclusively in these creatures, which could hold the key to unlocking a new realm of health and wellness.

The Most Potent Antioxidant: Unleashing the Potential of Spinochromes

Antioxidants stand as the guardians of our health and longevity, combating the onslaught of free radicals that threaten our well-being. While our bodies naturally produce these radicals through metabolism, our modern lifestyle exposes us to an abundance that overwhelms our natural defenses.

Enter spinochromes, the antioxidant superheroes. Unlike their larger counterparts, these remarkable molecules have the unique ability to stabilize a staggering seven free radicals per molecule, which can be increased to 81 molecules in certain formulations. However, their abilities do not end there; they also enhance the metabolism of glutathione, our body's natural antioxidant.

In essence, these pigments offer a level of protection and rejuvenation far beyond that of ordinary antioxidants. As we navigate the complexities of modern life, embracing the power of spinochromes may just be the key to unlocking a healthier, more vibrant future.



Mitochondrial Rescuers: Cellular Saviors

At the heart of its benefits lies their remarkable ability to rescue our mitochondria, the powerhouses of our cells. These molecules, which are only 260 kDa in size, easily enter our cells, combating harmful free radicals and mimicking the action of the SOD enzyme to boost glutathione metabolism.

The result is nothing short of miraculous: a revitalization of mitochondrial function, an increase in mitochondrial mass, and a boost in cellular energy and rejuvenation. It has been scientifically proven to significantly increase the mass and number of mitochondria in a natural way. With all of the benefits that it brings.

Immune-Boosting and Antiinflammatory Marvels

These pigments are not merely antioxidants; they wield a multifaceted approach to cellular rejuvenation. Beyond enhancing oxidative balance and mitochondrial activity, they possess the remarkable ability to act as secondary messengers within our cells. One of the most striking effects is the bolstering of our immune response, aiding in our battle against common ailments. More significantly, these pigments orchestrate a profound shift in our immune system's response, leading to a marked reduction in cellular inflammation. This collaboration results in a robust immune system that remains agile, without unnecessary inflammation hindering its efficiency.

Limitless Benefits: Discovering the depth of these pigments.

As we delve deeper into the world of spinochromes, we discover an abundance of benefits that are beyond our imagination. These oceanic gems promise a brighter and healthier future by boosting our immune systems, reducing inflammation, and promoting longevity.

Take a journey to the depths of the ocean, where spinochromes await to transform your health and well-being. Let us embrace these remarkable cellular saviors and unleash the power of vitality that is within us.





@promarineantioxidants

Dr. Tamara Rubilar

Dr. Tamara Rubilar is a scientist with over 20 years of experience in Biological Sciences, with a 15-year focus on sea urchin aquaculture and microalgae. She describes herself as an entrepreneurial scientist who overcame setbacks to emerge stronger. She is motivated by a desire to use science to benefit society and places a premium on environmental and social responsibilities.

Dr. Rubilar is motivated by the concept of triple impact, circular economy principles, and providing a better future for her children. These values inspired her to launch Patagonia's first STEM startup. The health challenges of her youngest child motivated her to seek solutions for autoimmune conditions and food allergies, blending her profession with her passion. The result: innovative products that have made a difference in her child's life and for thousands of others.

Always striving for excellence, Dr. Rubilar's primary focus remains on ensuring that science serves a higher purpose, benefiting humanity as a whole.

UPGRADING HUMANITY

- DAVE ASPREY

Jean Fallacara

Hi Dave, thanks for joining us for this interview, we are thrilled to have the opportunity to feature you in Biohackers Magazine for the 10th anniversary of the Biohacking Conference.

You are the founder of Upgrade Labs, Danger Coffee, 40 Years of Zen, Bulletproof, a four-time New

York Times bestselling author, you wrote eight books, and of course you are also known as the 'Father of Biohacking.'

Tell me a bit more about Upgrade Labs.

Dave:

Upgrade Labs is creating a future where you visit the doctor only in emergencies, such as a car accident, or when something is seriously wrong. However, managing your health should be your responsibility. You'll have a team of experts and a suite of Al-driven technology that guides you on what to do. It's all personalized, utilizing cutting-edge technology that significantly outperforms the outdated methods of mere guesswork.

Jean Fallacara

Interesting, I assume that above all these tools, Clients will have access to all the Biohacking modalities that we usually find in all Upgrade Labs in America.

Dave Asprey

You have the data too. For instance, I used to work out 90 minutes a day, six days a week, for 18 months, thinking that the more I exercised, the more weight I would lose. However, this assumption proved false when, after all that effort, I still weighed 300 pounds. I wondered if maybe I should eat less or if I was overtraining, since I felt constantly hungry. It turns out that just believing something works doesn't make it effective. If the numbers don't change, then it isn't working. We'll adjust your protocol until you achieve the results you want, doing the least amount of work necessary. These days, you can tune everything to get the energy, age, body, and mind you desire. It's a new era where customization is key, which wasn't possible before.

Jean Fallacara

Absolutely, the advancements in healthcare and wellness are truly transformative. Peter Diamandis's Fountain Life projects are another great example of this. They're at the forefront of integrating technology and preventive medicine to enhance human health and longevity. By leveraging AI, advanced diagnostics, and personalized medical approaches, Fountain Life aims to shift the focus from reactive to proactive healthcare. It's exciting to see such innovations shaping a new paradigm in how we approach our health and well-being.

Dave Asprey

Yes, I've been a member of Peter's group for over ten years. There's a highly medical aspect to it, which is significantly expensive. What I'm focusing on is making



technology that supports effective decision-making accessible to everyone, everywhere. If there's an Upgrade Labs in your neighborhood, you can access all our technology there. If not, you have to work with what you have in terms of budget and time.

At Upgrade Labs, we manage three things: cost in dollars, cost in time, and the effort or discomfort involved. Our goal is to provide solutions that are affordable, quick, and enjoyable. For example, suppose you have \$100 a month to spend on maintaining and improving your health. You wouldn't waste this going to a doctor just to get a lab test. Instead, you might invest it in cost-effective supplements or other health improvements that offer the greatest benefit for the least expense, guided by our technology.

Or, like me, you might choose to spend a significant amount on advanced options like age reversal. I recently received a test result showing my extrinsic age—how my environment and lifestyle affect my biological age—is 19.36 years younger than my actual age. This is the result of making informed choices, powered by AI and over 25 years of accumulated knowledge.

Unless you're as deeply immersed in longevity as I am, having listened to 1,200 podcast episodes and read thousands of my posts, you'll benefit from our developing technology which simply tells you what to do. It's not a one-size-fits-all approach; what works for me won't necessarily work for you. I don't publish my personal protocol because it's highly specific to my conditions and needs. For example, my body needs about 40 times more biotin than the average person. If you took the same dose, it could be harmful to you.

In conclusion, the right approach to health isn't about following a standard set of instructions; it's about understanding and applying what works best for you based on empirical data and personal experience. This is the essence of biohacking and personalized health optimization.

Jean Fallacara

Absolutely! With advancements in AI and data analytics, the process of personalizing health interventions has become much more streamlined and efficient. Instead of the traditional approach where you might have to undergo extensive testing before figuring out the best course of action, AI can now analyze vast amounts of data quickly. This includes everything from genetic information to lifestyle habits, allowing for immediate, tailored recommendations.

This means you can potentially skip the lengthy trial and error phase and move directly to interventions that are more likely to be effective for you. Al helps in predicting the outcomes based on similar profiles and past data, making it possible to "get the right track right away." This not only saves time but also makes the process of managing and optimizing health more precise and focused right from the start.

Dave Asprey

We are working on integrating all the data from your lifestyle, including inputs from wearables, scales, and the diagnostic technologies available at Upgrade Labs. If you're interested in opening a franchise, you can visit ownanupgradelabs. com to learn how you can become the owner of a biohacking facility. However, not everyone will invest in collecting extensive data through wearables and lab tests, as that's a luxury. You might have no wearables or lab tests, and simply want to start with how you're feeling and how you look, versus how you want to feel and look. We can work with that. We'll guide you based on

whatever information you provide. This capability to personalize recommendations with any level of data is a groundbreaking innovation in the world of biohacking.

Jean Fallacara

Absolutely. Do you think the goal for people on this planet is really to live longer, or to live better? Or perhaps, is it both?

Dave Asprey

There are some individuals who refer to themselves as longevity doctors, though they may not truly be. They assert that extending human lifespan is not possible, so the best we can do is extend our healthspan.

I've been deeply involved in the field of longevity for over 25 years, starting with running a nonprofit in Palo Alto near Stanford University in the late '90s. I learned longevity techniques from energetic octogenarians who had more vitality than I did in my 20s. We brought in past leaders in longevity, and from this experience, I became a biohacker. Back then, the idea that you could control your health, let alone extend your life, was met with skepticism.

Now, the landscape has changed dramatically. There's significant investment in longevity-probably around \$50 billion, based on conversations I've had with multiple billion-dollar companies and my explorations into launching a longevity venture fund. I started with the idea of making longevity 'cool' for everyone because starting longevity practices at 20, rather than 60, can dramatically enhance one's power, fertility, happiness, and resilience against anxiety, depression, and hopelessness. I write my blog posts with my 19-year-old self in mind, wishing I had known these things earlier, which could have saved me a million dollars.

When I wrote my book 'Super Human' in 2019, I compiled all the



studies showing that mammal lifespan can be extended. I've personally invested \$2 million over 20 years on reversing aging, which is a substantial amount, but nowhere near what some people spend annually. My approach to longevity is that it must be personalized, and the time invested in extending life should be justified by the extent of life extension achieved. For instance, if you spend eight hours a day trying to extend your life, it should at least extend your life by 25% to make it worthwhile. However, I prefer to spend less than an hour a day on my regimen, and my current workout stack is very aggressive, only taking up 20 minutes a week.

Jean Fallacara

20 minutes, that seems to me very aggressive, how can this be possible?

Dave Asprey

I'm actively using Upgrade Labs and our cutting-edge technologies. However, I want to clarify a detail that might have been misunderstood. Many people think I say '20 minutes a day,' but actually, it's '20 minutes a week.' This morning, for instance, I didn't do anything extraordinary, yet the results speak for themselves. As someone who formerly weighed 300 pounds, you can see the leanness and definition in my abs, despite the stretch marks from my previous weight. It's guite remarkable what can be achieved with just 20 minutes a week using our technology.

So, it doesn't have to be hard. It doesn't have to be painful. It doesn't have to suck, and you don't have to spend, you know, six hours a day doing every possible thing.

Jean Fallacara

Do you need any peptides, supplements, or other substances to achieve those results with only a 20-minute workout per week and get as shredded as you are?

Dave Asprey

Currently, I've achieved these results without using peptides. However, I recently started taking MK-677 about three weeks ago to increase growth hormone levels before bed. I want to clarify that when I began the biohacking movement, within a year or two, I was tested and found to have virtually no growth hormone production-a medical condition. As a result, I was prescribed growth hormone therapy for several years, which was medically necessary due to my body's poor functioning after living in a toxic mold en-



vironment and my overall health history. After adhering to various biohacking protocols, I was able to discontinue the growth hormone therapy. Now, my body produces normal levels of growth hormone on its own.

Jean Fallacara

That's true, the natural production of hormones like growth hormone and testosterone typically decreases with age in men, particularly after the age of 45. This reduction can impact various aspects of health and physical fitness, including muscle mass, energy levels, and overall metabolic health. It's impressive to hear about someone reversing this trend through biohacking techniques and interventions, which can help maintain or even increase these hormone levels to support better aging and vitality. This approach demonstrates the potential of personalized health strategies and also highlights the importance of understanding and managing hormonal health as we age.

Dave Asprey

I'm currently making growth hormone naturally. Many people are confused about testosterone-the evidence clearly states that if your testosterone levels are low at any age, you should elevate them to improve your lifespan and overall well-being. When I was 26 and had already lost 40 of the 100 pounds I needed to shed, I consulted one of the early longevity doctors in the Bay Area. This was at a time, around 20-25 years ago, when hardly anyone discussed aging. After conducting lab tests, this doctor informed me that my testosterone levels were lower than my mother's.

Environmental toxins, sleep disruptions, poor diet choices—even seemingly healthy ones—and obesity can all impact hormone levels. In my case, exposure to synthetic estrogens from toxic molds, which are significantly more estrogenic than human estrogens, was a major factor. Accumulated white fat from these exposures also produced estrogen. Consequently, I started medically supervised testosterone therapy to maintain levels typical of a healthy 28 or 30-year-old, aiming for about 900 to 1000 ng/dL. I've been on this therapy almost continuously for the past 24 years, except for a three-year period when I tested the limits of the Bulletproof Diet to naturally increase testosterone levels. Even with an optimal lifestyle, the highest I could achieve was 700 ng/dL.

Like most people, maintaining perfect health behaviors is unrealistic, especially given my frequent travels for speaking engagements, which involve exposure to toxins and circadian disruptions. Therefore, my goal isn't to spend all my time trying to achieve perfection but to build resilience so I can enjoy my life without compromising my health. I refuse to give up living just to extend my life.

This brings us to some figures, who are somewhat skeptical about certain longevity interventions, advocating instead for conventional measures like taking statins and exercising excessively. From my experience, I've seen numerous individuals who have pursued intense exercise regimes, like heavy lifting or long-distance running, for decades. Many of them end up needing joint replacements or suffering from other chronic injuries.

In conclusion, exercise should be about finding the right type and dose that brings about the desired change in your body, not just any activity that's traditionally labeled as 'exercise.' For example, I advocate for efficiency in exercise, like short sprints over long-distance





running, unless it's necessary. After years of experimenting with different exercise regimens, I've learned it's crucial to focus on what actually works rather than persisting with ineffective methods.

Jean Fallacara

Yes, it all starts with self-awareness. But tell me, Dave, how do you manage to get your cardio in with just 20 minutes a week?

Dave Asprey

We often believe that the longer we do cardio, the greater the benefits. However, our brains are wired to look for shortcuts in decision-making. There are at least 25 major cognitive shortcuts our brains use to conserve energy. Without our conscious consent, our brains tend to select the most energy-efficient method to reach a 'good enough' solution. When we have abundant energy and time, we can afford to delve deep—creating spreadsheets, taking notes, drawing mind maps, or meditating on a problem. But from the body's perspective, expending such energy is often seen as wasteful, especially if it might lead to a decision that deviates from the norm.

One of the most fundamental ways we navigate life, often without realizing it, is by following this rule: use the least amount of energy to make a decision. We typically think if something is good, more of it is better; if something is bad, avoiding it entirely is best. Consider cortisol, often labeled the 'bad stress hormone.' Our approach to cortisol exemplifies this rule: we perceive it as bad, so we often think the less of it, the better.

There's a common belief that more exercise automatically yields better results, like 'lift more, get more.' However, this isn't always supported by the data. In my latest book, 'Smarter, Not Harder,' I discuss a concept called 'slope of the curve biology.' This principle suggests that the amount of work you do isn't as important as how quickly you can start intense activity and then return to a resting state.

At Upgrade Labs, we use something called the AI Bike. This technology allows you to do an intensely effective workout in just five minutes, three times a week. During these sessions, you spend only 40 seconds in hard effort without breaking a sweat. The workout involves a cycle of pedaling almost painfully slow until sud-



denly, it becomes nearly impossible to pedal as fast as you need to. The key here is not just the exercise itself but the recovery phase. The AI system guides you through deep breathing exercises to help you quickly return to baseline.

Interestingly, if you do this twice during a workout, it's effective. If you try to do it three times, the results actually worsen. This counterintuitive finding is a great example of why more isn't always better. It reflects the body's innate intelligence—its ability to process vast amounts of data and environmental signals without our conscious effort.

This automatic system, which I refer to as the 'MeatOS' (meat operating system), manages everything from our digestion to our cellular responses without our direct involvement. During intense exercise, the body doesn't know you're just on a treadmill; it reacts as if you're being chased, activating survival mechanisms.

Now, consider the traditional approach like a spin class, where you might do an hour of cardio five days a week. The perceived benefit here is high due to endorphins and the satisfaction of a hard workout. However, from a biological standpoint, you're signaling to your body that you're in constant danger, which can lead to stress. Studies show that this traditional method might only improve your VO2 max by about 2% over two months.

Contrast that with the AI Bike at Upgrade Labs, where just 15 minutes a week can improve your VO2 max by 12%. That's six times more effective than the traditional method, demonstrating a significant efficiency advantage in using targeted, high-intensity workouts guided by sophisticated Al technology.

Jean Fallacara

That makes a big difference. Do you think we always need to use those shortcuts, or rather, if we discover how our body works internally, should we not refer to them as shortcuts anymore, but as optimizations? That is actually what you're trying to achieve, isn't it?

Dave Asprey

I don't subscribe to the idea of optimization; to me, that's an outdated concept, like something for cavemen. Here's why: I believe that saying 'I have limited resources, therefore I must optimize' is a perspective born from perceived scarcity. Optimization involves making trade-offs because you believe resources are finite. However, I live in an era where I have unprecedented control over my biology and my environment. My resources aren't limited, nor are my capabilities. Any limits I encounter are merely challenges we haven't yet learned to overcome.

So rather than settling for making 20 of this and 30 of that because I only have a total of 50, as a biohacker, I aim to create 100 units and then allocate them as needed—and if that's not enough, I'll create more. This is a significant shift in mindset.

The traditional optimization mindset is what leads people to think that we can never truly extend human lifespan, so the best we can do is optimize our current lifespan with two hours a day in the gym and regular doses of statins. I reject that notion. We are actively extending human lifespan by decades. For instance, I recently participated in gene therapy that can reduce the biological age of the average person by nine years with just one injection. This is just the beginning, as it's one of 10 different aging targets I'm working on with a company called MiniCircle.

However, while not everyone can currently afford the \$25,000 price tag-much like the early mobile phones in the 1990s that were only affordable for Hollywood executives and cost \$50,000 and \$20 a minute-it's only a matter of time before these technologies become accessible to everyone, just as mobile phones are now affordable worldwide. When people claim that extending human life isn't possible, they're not looking at the big picture. We are already making significant strides in ex-



tending human lifespans. Jean Fallacara

I agree that we are making advancements in extending human life, but for now, these innovations primarily benefit the wealthy. There's hope that one day these technologies will become mainstream and accessible to everyone, but there's a prevailing concern that undermines the biohacking community. Often when we talk about biohacking, people counter by saying it's only for the rich. This perception presents a significant challenge, as it suggests that these life-extending technologies are not yet available to the broader population.

Dave Asprey

People often misconceive biohacking as a privilege exclusive to the wealthy. However, when I wrote my book on longevity, I made sure to include actionable steps for everyone. The book outlines the four major health risks diabetes, cancer, cardiovascular disease, and Alzheimer's, which I refer to as 'the four killers.' Avoiding these conditions greatly enhances the likelihood of both living longer and better.

For each of the seven key systems for longevity mentioned in my book, I provide strategies that range from free to relatively inexpensive, ensuring accessibility. These include no-cost practices anyone can adopt to improve their health, affordable tools around \$20, and supplements that might cost about \$50. I also discuss what the wealthiest, whom I sometimes call 'crazy billionaires,' are doing, which includes highly advanced and expensive treatments. For example, I've personally undergone extensive procedures involving

stem cells more than probably anyone else on the planet. This includes having my bone marrow and fat extracted multiple times and my own stem cells injected into every joint in my body, as well as treatments to rejuvenate my immune system.

While these high-end treatments demonstrate what's possible, they aren't feasible for everyone. However, they help prove the effectiveness of these approaches and pave the way for developing more accessible technologies. At Upgrade Labs, we're soon introducing a product that anyone can take orally to release stem cells in amounts comparable to intravenous therapy. This kind of innovation shows that the principles of biohacking can be translated into practical, affordable solutions that eventually become accessible to a wider audience.

Jean Fallacara

That's great to hear! Christian Drapeau's work with Stemregen is indeed pioneering, tapping into the potential of natural compounds to support the release of stem cells, which can contribute to healing and rejuvenation. His efforts are making strides in the accessibility of biohacking technologies, making it possible for more people to benefit from advanced scientific discoveries in a manageable and more affordable way. It's exciting to see such innovations contributing to the democratization of longevity and health optimization. If you're exploring or using products like Stemregen, you're at the forefront of integrating cutting-edge science into everyday health practices!

Dave Asprey

STEMREGEN is a remarkable product and a key part of the protocol stacks we use at Upgrade Labs for longevity and rapid recovery. This doesn't mean I'll stop using stem cells altogether; instead, we're moving towards using gene-edited stem cells and those with enhanced capabilities. However, the idea of injecting umbilical cells from random donors at a high cost seems unnecessary now. We can activate our own stem cells, which is a more sensible approach.

We are indeed living in the future, and while some may argue that these advancements are only for the wealthy, I challenge that notion based on the evidence presented in my books. Each book explains why certain health practices matter and offers no-cost strategies for anyone wanting to start biohacking on a budget. For example, improving sleep by ensuring complete darkness in your bedroom is crucial. If funds are tight, you could repurpose aluminum foil to cover your windows. Most people might opt for something more conventional like purchasing \$20 blackout curtains online.

This approach is backed by research, such as a study from Japan showing that just a small amount of light leaking around bedroom curtains can increase depression by 69% in city dwellers. This data supports the idea of upgrading your sleep environment as a simple yet effective health enhancement. These are practical, affordable strategies anyone can implement, demonstrating that the principles of biohacking and longevity are accessible to all, not just a privileged few.

Jean Fallacara

Absolutely. Many people remember to use blackout curtains to block light at night, but they often forget the importance of exposing themselves to sunlight in the morning. Yes, getting morning sunlight is another free biohack. Exposure to natural light first thing in the morning helps regulate your body's internal clock, or circadian rhythm, which improves sleep guality, boosts mood, and enhances overall energy levels throughout the day. So, just as you use curtains to create darkness, you should also make a point to seek out sunlight to naturally enhance your well-be-



ing. All free as well!

Dave Asprey

It's completely free. Every morning, I make it a point to go outside. In fact, one of the reasons I moved to Austin from Canada was the lack of sunlight there. It's tough to get the benefits of sunlight when the sun rarely shows itself. That's definitely a problem when you're trying to maintain a natural circadian rhythm.

Jean Fallacara

Alright Dave, the 10th anniversary is just around the corner, and it's going to be a big event! It's all set to take place this year in Dallas, TX from May 30th to June 1st.

Dave Asprey

It's pretty cool, but actually, it's our 13th anniversary. We might say it's the 10th because we didn't count the two conferences during the pandemic, which didn't quite feel right. The first conference started in 2013 with 100 people people in a bar in San Francisco. We chose a bar because they're typically empty during the day, allowing us to use the space almost for free. It was just 100 people who were following my work and wanted to dive deeper. We had a great time.

The next year, we moved to the Pasadena Convention Center, and it grew into a very large event. This year, the Biohacking Conference will be in Dallas from May 30 to June 1. You can find more details at <u>biohackingconference.com</u>. We'll have over 100 vendors, massive speakers, and about 3,400 attendees. It's a community where people have met spouses, started businesses, and really changed the world.

As for the biohacking market, when I was raising funds for Upgrade Labs, research varied widely—one analyst estimated the market at \$10 billion, while another projected it to be a \$63 billion industry. I started a \$63 billion industry with the Biohacking Conference. So, looking at the '10th annual' label, I don't sell \$63 billion a year, but I've definitely enabled a new way of thinking about how we show up in the world with biohacking.

It's also been controversial. When I started, people were upset about the idea of upgrading and hacking oneself. But as an unlicensed biohacker, I could speak freely without worrying about a medical license I never had. I've even had the honor of speaking at the American Academy of Anti-Aging Medicine, making it clear that I'm not a doctor but here to share what works.

Now, many physicians who listen to my show or read my books even carry my products. For instance, some ask if they can stock 'Danger Coffee,' my new coffee brand.

This movement is what true healers-doctors who want to make a difference-have always wanted. They'd prefer to see their patients thrive and only visit when absolutely necessary. This isn't about maximizing patient volume-that's more the realm of pharmaceutical companies and insurance firms. True healers wish they could wave a wand and have their patients remain healthy forever, because there are so many people who need this kind of help. That's the essence of what we're building with biohacking: empowering people to manage their own health so they visit doctors only for specific issues, informed by their own data.

Jean Fallacara

Let's go. You know, in India, insurance companies are already offering bonuses to people engaged in biohacking and age reversal. It's only a matter of time before we see similar initiatives in America and globally. Biohacking not only promotes health but also offers financial benefits to these companies. One question I have for you Dave, is about the older population. Many individuals over the age of 65 would love to live longer, enjoy a better quality of life, and engage in biohacking. However, they often feel intimidated by the term 'biohacking.' What can we do to change this perception? Or should we even try to change it?

Perhaps we could start by reframing biohacking in terms more familiar and less daunting to them. We could emphasize that biohacking is essentially about taking greater control of one's own health through lifestyle adjustments, supplements, and using technology to enhance well-being. By illustrating how everyday activities like balanced nutrition, adequate sleep, and moderate exercise are forms of biohacking, we can demystify the concept.

Furthermore, we could use more relatable success stories and testimonials from peers within their age group who have benefited from biohacking. Demonstrating tangible results through case studies or before-and-after scenarios could help to alleviate fears and inspire them to embrace biohacking techniques.

Ultimately, it's about communication and education, ensuring that the older population understands that biohacking is just a modern term for optimizing health, something that's beneficial at any age.

Dave Asprey

Certainly, let's refine and clarify your statement to make it more readable:

I don't have the exact number, but we've seen a significant number of biohackers over sixty coming into Upgrade Labs locations. It's incredibly empowering and liberating, especially for that generation who often hold doctors in very high regard, almost on a par with priests. Unfortunately, many people in this age



group, unless they've embraced biohacking, tend to gain weight and find that traditional methods like exercise no longer produce the results they used to. After hitting about 50, many people stop responding to conventional exercise. They might think the solution is to exercise more, not realizing that the real issue could be something like decreased testosterone production, which no amount of gym time can overcome if your body lacks essential elements.

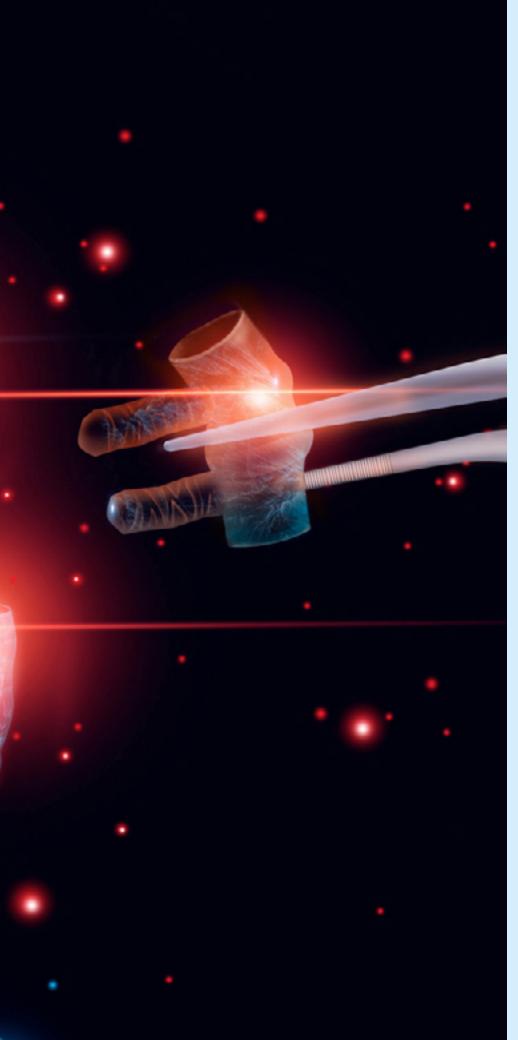
One common deficiency l've noticed, regardless of whether someone is 20 or 70, is in 'Vitamin DAKE'-a term I use to refer to a mix of essential fat-soluble vitamins (D, A, K and E) that many of us don't get enough of, either from our diet or from sunlight. I've created a supplement that combines these vitamins, available for about \$22 a month on vitaminDAKE.com. This site also offers 'Minerals 101', a broad-spectrum macro-mineral supplement. Insufficient levels of zinc, copper, manganese, and other vital minerals mean that even if you exercise, your body might not have the resources it needs to respond effectively. Minerals 101 allows you to get all the minerals your body needs to function efficiently and to be full of energy.

For the older demographic, addressing these deficiencies can make a significant difference. However, there will always be some who are hesitant to take control of their own biology. For them, I'm developing an app that will simply tell them what to do. It can be used at home, allowing anyone to engage in biohacking in a way that suits them. You can call yourself a biohacker or whatever you prefer, but either way, you're taking steps to manage your health.

Jean Fallacara

You're still actively engaged in managing your health, which is





essential. It's important to understand that there isn't a magic pill that will solve all health problems instantly-this is a key truth in health management. Now, as we conclude, I'd like to touch on the ethical and philosophical implications of life extension, such as the concept you mention on your website about living to 180 years. I find that fascinating and quite bold. You've mentioned working towards doubling our lifespan. This raises significant questions about the quality of life, societal impacts, and the resources required to support longer lives. What are the potential consequences, both positive and negative, of such dramatic increases in life expectancy? How do we ensure that extended life is not only longer but also filled with vitality and purpose? These are crucial considerations as we venture into these uncharted territories of human longevity.

Dave Asprey

Yeah, so here's why I believe the number 180 is realistic. Currently, the oldest verified age is 120 years. Just consider what the world was like 120 years ago – World War I was fought with horses, and the airplane had just been invented. In fact, a year before the Wright brothers' first flight, a prominent banker declared that man would never fly. It sounds similar to some skeptics today.

Now, think about the advances since then. When someone lived to 120 years old, DNA hadn't yet been discovered, mitochondria were poorly understood, and the concept of neuroplasticity was unknown. We lacked basic medical technologies like antibiotics and even clean water. Today, we have a wealth of technology at our fingertips for a fraction of what it used to cost. We can monitor sleep, exercise, and more, with affordable devices that provide a trove of data. Given these technological advances and my experience working with cutting-edge companies for over 20 years, I'm confident that improving our current lifespan by 50% in the next century is achievable. Moreover, the pace of biological knowledge is doubling every 72 days, thanks to Al and extensive research. This exponential growth in understanding, combined with low-cost sensors and the data from millions using fitness trackers, enriches our insights immensely.

For instance, at my company, 40 Years of Zen, which focuses on neuroscience, we're gathering extraordinary brain data. We're integrating this data into Upgrade Labs, where we offer brain training and neurofeedback, allowing us to monitor and compare brain activity across individuals.

In this era, staying updated with the rapid increase in knowledge is only feasible through Al. No doctor could possibly read every new research paper published each day. But with AI, we can synthesize this vast amount of information and provide actionable advice.

At Upgrade Labs, our mission is to simplify this information and tell you exactly what to do to upgrade your health effectively. This way, you don't need to spend countless hours at the gym each week. We aim to offer the most effective strategies per minute spent with us, enhancing your health efficiently and profoundly.



Jean Fallacara

Yeah, with all these efficient health practices in place, what would you suggest we do with the extra time saved? What are your recommendations for making the most of the time that's no longer spent on traditional, time-consuming health routines?

Dave Asprey

It's interesting, one of the simplest ways to extend your life is by having a healthy mother and



grandmother. The quality of nutrition and the stress environment before you were conceived and while in the womb are crucial. Of course, you can't change your own past, but you can influence this for your children, which I discuss in my first book.

Next, what do you do about your food? That was the focus of the 'Bulletproof Diet.' Then, how do you improve brain function? That led to my book 'Head Strong,' a New York Times bestseller about enhancing mitochondrial function in the brain with step-by-step guidance. I had to learn this the hard way through my own struggles with crippling brain fog and chronic fatigue.

Once I regained my brain function and energy, I pondered, 'What am I going to do with my life?' To find answers, I interviewed 400 guests on my podcast, including Nobel Prize winners, and conducted a statistical analysis to identify about 50 life-changing actions. This research culminated in 'Game Changers,' which readers say has transformed their lives, likening it to reading 100 personal development books in one.

Following that, I wrote 'Super Human,' focusing on using newfound vitality to significantly extend life expectancy. Then, I addressed the trend of fasting with 'Fast This Way.' While the 'Bulletproof Diet' introduced millions to intermittent fasting, I noticed people often think more is better, which isn't the case with fasting. This book explores the psychology of fasting and customizing it to individual needs.

My latest work, 'Smarter Not Harder,' challenges conventional exercise routines. It explores how to achieve substantial results from minimal yet smart exercise, preventing the common pitfall of wasting time in the gym. Despite enjoying exercise, I've had my share of injuries and inefficient gym sessions. Now, I get better results with minimal time invested about 20 minutes a week, though I'm considering increasing this to an hour a week just to experiment. However, without access to Upgrade Labs' technologies, a reasonable time would be about two hours a week.

I've consulted with many women, from their mid-20s to their 60s, who visit the gym daily and stick to salads yet struggle with weight loss and fatigue. I advise them to eat more, incorporate foods like steak, reduce their exercise time, and focus on recovery. They often return two weeks later reporting improved sleep, better hormonal balance, healthier skin, and weight loss. They're amazed that less exercise and more recovery can lead to better results, but that's exactly how our bodies function.

Jean Fallacara

It's fascinating because, over the past five years, I've been studying how extreme biohacking can lead to oxidative stress. Interestingly, those who push their biohacking efforts to the extreme often don't achieve as significant a reduction in their biological age as those who take a more moderate approach. As you mentioned, doing a bit less can be more effective than doing too much. We've observed many people become obsessed with biohacking, thinking they need to wake up early to sunbathe, take cold plunges, and follow an intense regimen of activities. In their rigorous pursuit of health, they overlook one crucial aspect: the simple joy of living.

Dave Asprey

The ultimate goal of biohacking is to lead a happy and energetic life, one where you have enough vitality to evolve as a human being. Maslow's hierarchy of needs,



a well-known psychological principle, outlines the essentials every human requires—safety, care, community, and more. However, Maslow passed away unexpectedly in his early 60s, before he could fully develop his ideas. Scott Barry Kaufman, a guest on my podcast 'The Human Upgrade,' discussed how he explored all of Maslow's unpublished papers. He discovered that Maslow's final step in the hierarchy was 'transcendence.'

Becoming a biohacker can help you activate your energy as if you were young again, regardless of your actual age. Imagine combining the wisdom of your years with the vitality of youth; this fusion liberates tremendous energy and potential, facilitating personal evolution. With this renewed energy, you not only meet your day-today needs but also have enough left over for practices like gratitude, forgiving those who have wronged you, and genuinely improving yourself as a person. This transformation makes you not just kind, but formidably so.

This is the inspiration behind my new brand, Danger Coffee. It reflects the concept that there are two types of safety in the world. One is a false sense of security where you're exhausted and depleted, confined to a cubicle. The other is about being energetically powerful and truly alive, embracing the risks that come with living fully and fearlessly.

If you choose the biohacking path and become so energetic that you can handle whatever life throws your way, it makes you 'dangerous' in a way. But it's a positive danger, the kind that breeds freedom, happiness, and joy. It's about having the freedom to always do the right thing because you have the energy and the will to choose kindness and peace.

That's the only future I envision for our species. The alternative-

where everyone is limited, controlled, and joy is rationed—drains life of its essence. What's the point of extending your life if it feels like you're imprisoned every day, unable to enjoy a single moment of peace? This won't happen. I'm not alone in this belief; there are billions aligned with this vision. We choose to do what's right, take care of our families and ourselves, and extend kindness to neighbors and strangers because we have the energy to do so.

I know from experience in my 20s that when you're low on energy, everything is harder. You snap at your kids, get angry in traffic—I used to joke that my most developed muscle was my middle finger because I was always angry. When you're low energy, controlling your emotions is nearly impossible because you simply don't have enough 'electricity' to regulate them.

That's why I do what I do. Evolving as a human being requires energy, and we're at a point in society where we know how to turn that energy back on. When someone from a big cereal company suggests eating sugar cereal for dinner to save money, you should be able to laugh it off. Being offended only shows that you're programmable. Instead, you should be able to see the absurdity of such advice and wonder if they even believe in their own product. Do they feed it to their own kids? Likely not.

Jean Fallacara

Absolutely, they probably don't. It's often said that chaos breeds opportunity, and in many ways, that's how money is made. But isn't that exactly what you're addressing? By focusing on biohacking and enhancing personal well-being, you're essentially turning the chaos of modern health misconceptions into a structured, profitable endeavor. This approach not only benefits individuals by providing

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them with effective health strategies but also creates a market that thrives on positive transformation rather than exploiting confusion and fear. Ultimately, what you're doing is reshaping the chaos into something that promotes growth and improvement, which is both revolutionary and inspiring.

Dave Asprey

It's interesting to reflect on my early career in Silicon Valley, where I was involved in pioneering what would become e-commerce before the term even existed. The first product ever sold over the internet was a product I made from my dorm room to pay for college tuition. It featured a caffeine molecule design on a t-shirt that read, 'Caffeine, my drug of choice'—a nod to how coffee got me through calculus. This early venture into online selling was just the beginning of how I would continuously seek to disrupt traditional ways of doing things throughout my career.

This approach is not just about business innovation but also extends to how we handle personal health and aging—a concept I've deeply integrated into my philosophy of biohacking. By leveraging technology and insights from longevity science, we are reshaping outdated concepts of health and aging. For instance, today we understand that the tools and strategies that rejuvenate older adults can also fortify the young, enhancing vitality across all ages.

The societal shift toward taking control of our biological health is profound and long overdue. It promises to foster human flourishing and kindness while diminishing suffering and negativity. I envision a world where my children, whom I plan to be around for at least the next 100 years, can grow up in a society that values and practices this new approach to health.

Consider how our perception of

aging has already begun to change. Back in 1990, the year I graduated high school, you were considered elderly in your mid-fifties to sixties, based largely on physical strength like grip strength. However, as people remained physically stronger for longer, society had to rethink what it means to be 'elderly.' This shift in perception is accelerating with advancements in Al and biohacking.

Now, let's talk about fertility, another crucial aspect affected by our health practices. Today, many 30-year-olds worry about their ability to conceive, reflecting a broader decline in human fertility due to poor health and environmental factors. Through biohacking, which involves optimizing diet and environmental factors without resorting to invasive procedures, my partner and I were able to conceive naturally, even after being initially told it was unlikely. Our children are now healthy teenagers, illustrating that controlled, intentional changes in how we live can dramatically affect our biological functions.

Biohacking is essentially about maximizing your energy and vitality. With increased energy, you can improve all aspects of your life your career, relationships, and personal growth. It's about creating a cycle of 'compounding returns' where increased vitality fuels further enhancements in every facet of your life. I can personally attest that I've never felt more energized, mentally sharp, or fulfilled than I do now, far surpassing any point in my younger years.

This is the power of biohacking: it's not just about living longer; it's about living better, with every year better than the last. We all have the potential to transform our lives this way. It's about harnessing that energy to make meaningful changes and enjoy a richer, more vibrant life.

Jean Fallacara

We live in a beautiful world, and you're making it even more beautiful with all this positivity. I love it, Dave. Thank you so much for being my guest here and for the interview in Biohackers Magazine. We are proud to support your work and thrilled to be part of this journey. And by the way, should I say happy 10th or 13th anniversary?

Dave Asprey

Sure, either one works. As we wrap up, I want to highlight something important. I chose not to trademark the term 'biohacking' because I envisioned it as a community movement. While I am recognized as a leader in the biohacking movement, I am certainly not the only biohacker. There are many emerging leaders in the field.. This is why publications like Biohacker Magazine can exist. The term 'biohacking' entered the English language as a new word in 2018, and remarkably, my name is now included in Webster's Dictionary alongside it. However, the growth and recognition of biohacking isn't just due to my efforts; it's because of our collective involvement. It's a global movement with biohackers in every country, and I'm grateful you're a part of it. Thank you for contributing to this movement.

Jean Fallacara

Thank you. We are honored. I'll bet on that 180 years!

FIND OUT MORE <u>@dave.asprey</u>



BIOHACKING'S IMPACTON SOCIETS: From Fringe to Mainstream

by Noee Spiegel



thin the realms of health, wellness, and technology, the clandestine practice of biohacking has developed into a significant cultural movement that has become increasingly relevant. Biohacking, which was long thought of as the domain of a select few individuals and was devoted to unconventional and usually uncontrolled self-experimentation, has developed into a widespread movement that has significant implications for both individual and public health, fitness, and medicine. Biohacking was once regarded to be the domain of a select few individuals. This transition is a reflection of a greater cultural movement toward individual empowerment in health optimization and a reconsideration of what it means to lead a healthy life. It is also a reflection of the fact that this transformation has taken place. The application of systems

thinking and self-experimentation in order to enhance the functioning of the body is the core of the biohacking movement. Alterations to one's diet and lifestyle, the employment of wearables and technology, and even genetic editing are all potential methods for accomplishing this goal. It is possible to trace its roots back to the do-it-yourself biology movements that appeared in the early two thousand years of the century. The application of hacker ethics to the science of biology was a defining characteristic of these movements. These enthusiasts believed that the human body was a system that could be hacked, optimized, and modified according to their own preferences. Methods of biohacking were initially seen as experimental and on the periphery of society when they were first introduced. They were commonly viewed with suspicion by members of the general public as well as those working in the medical field. Early biohackers were people who worked on the periphery of scientific study. They were noted for their unconventional methods. These individuals put theories and techniques that were usually considered to be unusual or controversial to the test by using themselves as guinea pigs. Biohacking has evolved from a niche hobby into a huge cultural and health phenomenon, and this shift can be attributed to a variety of distinct factors. The notions of monitoring and optimizing body functions have become more accessible and acceptable to the general population as a result of the proliferation of wearable technology and health tracking gadgets. The reason for this is that these technologies enable individuals to measure their health while also wearing them. The concept of leveraging tech-

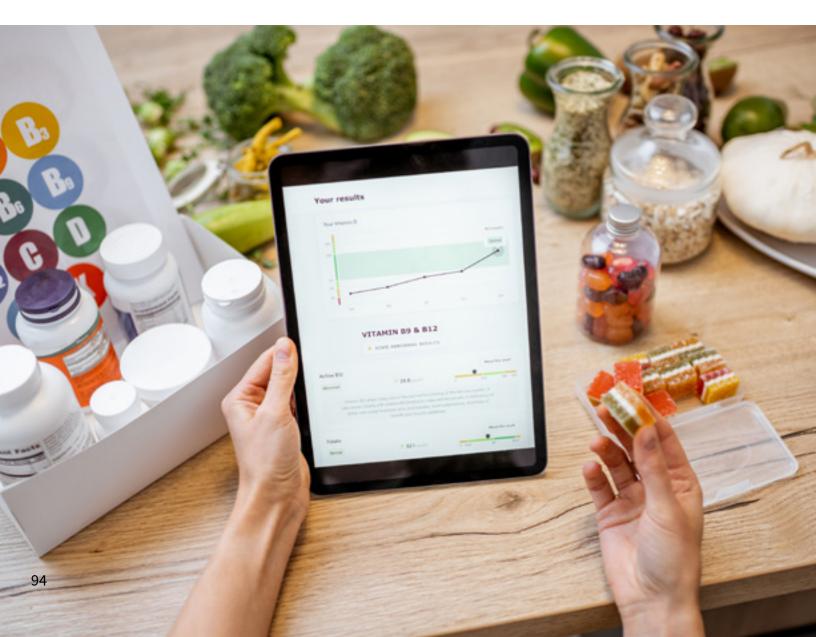
nology and data to improve one's health progressively became incorporated into the prevalent wellness narrative throughout the course of time: people started keeping track of their steps, sleep patterns, heart rates, and other elements of their health, which led to this phenomenon. Additionally, during the same time period, the proliferation of information and groups on the internet had a role in the dissemination of biohacking methods and beliefs. It was observed that there was an increase in the number of websites, podcasts, and social media platforms that were explicitly devoted to the topic of biohacking. Through the use of these platforms and websites, individuals were able to build forums in which they could discuss their experiences, both positive and negative. This democratization of information not only helped in the process of de-mystifying biohacking, but it also positioned it as a practical approach to health and wellness for a more widespread audience. This was a significant step in the right direction. Furthermore, the growing dissatisfaction with conventional healthmodels, care which frequently place a higher emphasis on healing health problems than avoiding them, has driven a large number of people to explore alternative methods of obtaining health and wellbeing. Many of these individuals have been looking for ways to improve their health and wellness. It is only logical that individuals who are dissatisfied with the reactive approach utilized by conventional medicine would find biohacking intriguing due to the fact that it places a focus on prevention, optimization, and personal empowerment. The wellness and fitness industries have been profoundly influenced by the phenomena of biohacking, which has garnered popular acceptance in recent years. At the moment, the implementation of biohacking strategies is considered to be standard practice for fitness centers, wellness centers, and even personal trainers. These methods include high-intensity interval training (HIIT), which is concentrated on the optimization of biological responses, as well as nutritional strategies that aim to boost metabolic efficiency. Ultimately, the goal of these procedures is to improve metabolic efficiency. Furthermore, there has been a rise in the quantity of goods and services

that are designed to assist individuals who are attempting to engage in biohacking. Nootropic tablets, which are designed to improve cognitive performance, improved sleep monitors, and individualized dietary regimens that are developed based on genetic testing are some examples of these types of products. This change not only involves the introduction of new products and services, but it also represents a more fundamental shift in the way that society views health and wellbeing. This shift is a result of the introduction of new products and services. An ever-increasing number of individuals are starting to see the importance of adopting a preventative and customized strategy while handling their medical treatment. Taking into account the unique biological

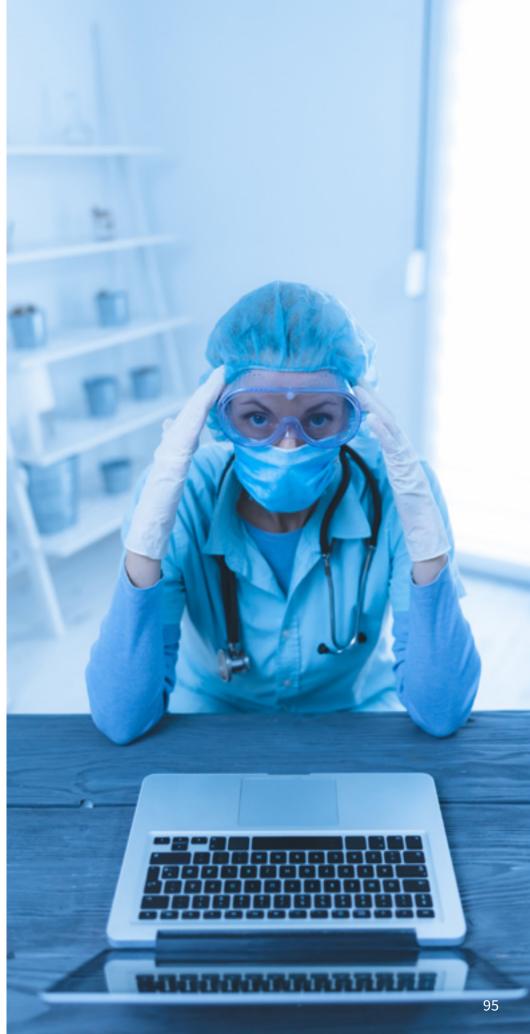
make-up of each individual, this acknowledgment also takes into account the potential for technology to assist in enhancing both the physical and mental vitality of an individual. It is possible that the most significant consequence that has emerged from the ascent of biohacking to public fame is associated with the influence that it has had on the field of medicine. As individuals take on more active roles in maintaining their own health, biohacking is challenging the traditional boundaries of medical practice. This blurs the borders between patient and practitioner, which is a result of individuals taking on more responsibility for their own health. On account of this, there has been a boom in interest in precision medicine, which, in a manner analogous to biohacking,

places an emphasis on the personalization of medical care. To practice precision medicine, one must make decisions, implement methods, and purchase items that are tailored to meet the exact requirements of each individual patient

Additionally, biohacking has spurred a more open conversation regarding genetic alteration and the likelihood of CRISPR and other gene-editing technologies being employed in the treatment and prevention of disease. This topic has been sparked by biohacking. However, the focus of the discussion has shifted from whether or not these technologies should be deployed to how they may be applied in a responsible manner to improve human health. While concerns regarding ethics and safety



remain to be of the utmost importance, the discussion has shifted its focus. The practice of biohacking is nevertheless vulnerable to criticism and challenges, despite the fact that it is gaining more and more general acceptance. If it were not subject to appropriate regulation and oversight, biohacking, according to some who are opposed to it, may lead to dangerous self-experimentation or exacerbate health disparities that already exist. The gathering and manipulation of genetic data is related to a number of ethical questions, as well as concerns regarding the invasion of privacy. In addition, there are difficulties regarding the invasion of privacy. To add insult to injury, the commercialization of biohacking raises concerns about the commodification of health and the question of whether or not access to the most efficient tools and technologies will be limited to those who are able to invest in them. The fact that this is the case underscores the importance of implementing a comprehensive approach that ensures the benefits of biohacking are accessible to all individuals, rather than being restricted to a select few who are granted privileges. It is a reflection of a larger change in how health, wellness, and medicine are perceived and practiced that biohacking has made its way from the margins of society to the mainstream culture now that it has made its way into the mainstream culture. It is an expression of a tendency toward individual empowerment, the optimization of individualized health, and the absorption of technology into different areas of everyday life. Specifically, it incorporates technology into numerous aspects of daily life.



Neuropasticity and Speec Reacing Rewiring the Brain for Rapid Information Absorption

by Noee Spiegel



he extraordinary capacity of the human brain to change and rearrange itself, which is referred to as neuroplasticity, has significant repercussions for the process of learning and the acquisition of skills. Speed reading is a skill that allows individuals to greatly improve their reading speed without a commensurate drop in understanding. It is an example of how the ideas of neuroplasticity may be applied in a practical setting. The purpose of this study is to investigate the ways in which neuroplasticity is the foundation of the art of speed reading, which enables individuals to process and comprehend information at a faster rate than is possible with traditional reading methods.

There is a phenomenon known as neuroplasticity, which describes the capacity of the brain to establish and restructure synaptic connections, particularly in response to learning or experience. Through the utilization of this adaptive capacity, the brain is able to recover from injuries, compensate for deficiencies, and gain new capabilities. The strengthening of preexisting brain pathways, also known as long-term potentiation, and the formation of new connections through dendritic development are two of the most important mechanisms of neuroplasticity.

It is essential to have a solid understanding of the concepts of neuroplasticity in order to comprehend how humans acquire and master new skills. As an illustration, the practicing of a skill over and over again can result in increased efficiency and competency. This is because the neural pathways that are engaged in that skill grow more resilient and efficient as the practice continues. This process of synapse strengthening and optimization is the foundation for the brain's ability to adapt to new cognitive de-





mands, such as the demands that are imposed by fast reading.

The act of reading requires a number of complicated cognitive functions, such as visual perception, phonemic awareness, fluency, vocabulary, and comprehension. Reading in the traditional manner frequently involves subvocalization, which is the act of silently speaking words in one's brain. This can slow down the reading process. Techniques for speed reading, such as chunking (which involves arouping words together to read in "chunks" rather than word by word) and limiting subvocalization, are designed to circumvent these restrictions.

The cognitive load theory proposes that the human working memory has a limited capacity, which can be easily saturated when using standard reading methods. The purpose of speed reading techniques is to lessen the burden on the brain by improving the effectiveness of information processing. This makes it possible to read more quickly without exhausting the resources of the working memory.

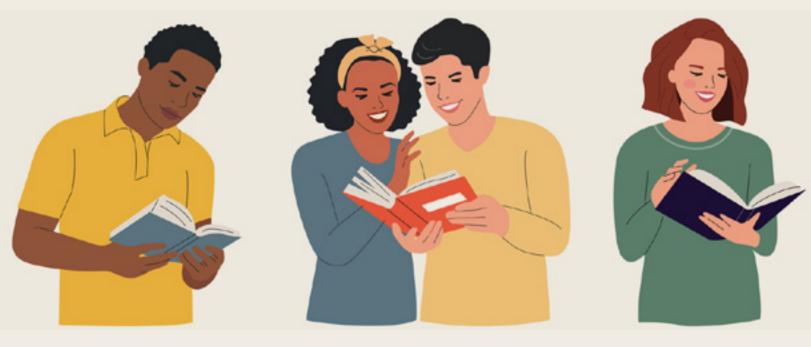
One of the most prominent examples of neuroplasticity in action is the process of acquiring expertise in rapid reading. By rewiring their brains to handle textual information more efficiently, speed readers are able to take advantage of the brain's capacity for adaptive change. This is accomplished through specialized training and practice to improve their reading speed.

It is possible to have a better understanding of how the brain may adapt to enable the rapid absorption of information through the study of speed reading and neuroplasticity. Research using neuroimaging techniques has demonstrated that individuals who participate in speed reading training had changes in the patterns of brain activity. These findings suggest that the brain is capable of reorganizing itself to accommodate more effective reading strategies.

It is crucial to realize the hurdles and limitations that are inherent in this process, despite the fact that the promise for increasing reading speed through neuroplasticity is intriguing. The efficiency of speed reading training can be affected by a variety of factors, including the individual's age, cognitive aptitude at the beginning of the training, and the presence of learning difficulties. Furthermore, there are opponents who suggest that considerable increases in reading speed may come at the expense of understanding and retention of information.

When it comes to producing the neuroplastic changes that are linked with fast reading, consistent and focused practice is absolutely necessary. The neuroplastic adaptations that are necessary for mastering speed reading can be optimized through the use of training regimens that stress incremental gains in reading speed, in conjunction with comprehension tests.

The concept of multimodal learning, which involves integrating multiple sensory pathways in the educational process, is grounded in the understanding that our brains are not unidimensional in their approach to processing information. By engaging visual, au-



ditory, and kinesthetic modalities, we can enhance the neuroplastic capabilities of the brain, fostering a more fertile environment for acquiring complex skills such as speed reading. This multisensory approach capitalizes on the brain's inherent capacity for cross-modal plasticity, wherein activation in one sensory modality can influence and enhance the functioning of another.

Visual aids, for instance, can range from color-coded texts to graphical representations of material, which help in anchoring abstract concepts in tangible forms, making it easier for the brain to

process and retrieve information. Auditory feedback, such as listening to a recording of the text while reading, can reinforce comprehension and retention by engaging different neural pathways associated with language processing. Kinesthetic approaches, which involve physical interaction with the learning material-such as tracing words or using gestures to represent concepts—activate motor regions of the brain, further solidifying learning. Incorporating these varied sensory inputs does more than just provide a richer learning experience; it stimulates the creation of a denser network of neural connections, enhancing both the

efficiency and flexibility of cognitive processes involved in speed reading. This is particularly important given the complex interplay of visual perception, cognitive processing, and memory retrieval that speed reading demands. By engaging the brain in a more holistic and integrative manner, learners can more effectively adapt to the cognitive load that speed reading entails, optimizing both the speed and comprehension aspects of reading. Moreover, the multimodal approach aligns with the principles of individual differences in learning styles. Recognizing that learners have unique preferences and strengths in how they process information, incorporating a variety of sensory experiences in speed reading training can accommodate these differences, ensuring a more inclusive and effective learning strategy. Ultimately, leveraging the full spectrum of sensory modalities in learning not only facilitates the development of speed reading skills but also exemplifies the dynamic and adaptable nature of the human brain, underscoring the profound potential of neuroplasticity in enhancing human capabilities.

Exercises that are meant to improve working memory, attention, and executive functions can be used as a supplement to speed reading training, which has the potential to increase the brain's total capacity for processing information quickly.

Through the interaction between neuroplasticity and speed reading, one can gain a unique insight into the incredible capacity of the brain to learn and adapt to new situations. Through the utilization of the principles of neuroplasticity, humans have the potential to rewire their brains in order to increase the rate at which they take in information, hence improving their capacity to navigate the information-rich environment that exists in the modern world. The promise of speed reading as a tool to unlock the full potential of the brain highlights the need of continuing study and innovation in this sector, despite the fact that there are hurdles and constraints that exist. Our capacity to learn will increase in tandem with the depth of our understanding of neuroplasticity.





IG: <u>@noeespiegel</u>

Noee Spiegel

Noee Spiegel, born in Montreal to French parents, is a multifaceted talent. As a co-author of "Neurosciences Calisthenics," she bridges the gap between neuroscience and everyday life. A respected contributor to Biohackers Magazine, her articles explore the intriguing world of biohacking, blending technology and biology. Winner of the McEntyre Literature Prize, Noee's literary skills are as profound as her scientific insight. Her diverse interests span from philosophy to wellness, enriching her perspective. Currently studying at Western University in Canada, Noee is on an ambitious journey to become a surgeon, a testament to her commitment to advancing human health and well-being.

PRODUCT Reviews



Disclaimer:

The views and opinions expressed in these reviews are solely my own and are provided for informational purposes only. I am not affiliated with the manufacturer or any related entities, nor have I received any form of compensation or incentive from them for writing this review. My analysis and feedback on the products are based on personal use and research, intended to share my experience and insights with others who may be interested in enhancing their health and wellness journey. This review does not constitute medical advice, and readers are encouraged to consult with healthcare professionals before making any changes to their dietary or health routines.



Apollo Neuro:

Harnessing Science to Enhance Wellbeing



Apollo Neuro stands out as a pioneering wellness wearable designed to improve various aspects of health through scientifically validated technology. This device promises to aid in quicker recovery, boost immunity, enhance reproductive health, increase heart rate variability (HRV), sharpen focus, and improve sleep.

Why It Was Made:

Apollo Neuro is developed with the aim to harness the power of touch therapy translated into a wearable device, utilizing gentle vibrations to help the body recover and thrive throughout the day. - The Quantified Cyborg Monthly Review

- Brand and Variations:

Apollo Neuroscience, the company behind Apollo Neuro, emphasizes transparency and scientific rigor, partnering with top-tier scientists and physicians to develop their technology.

- Relevance to Health and Wellness:

In today's high-stress world, a device like Apollo Neuro is extremely relevant, appealing to individuals looking to manage stress, improve sleep, and enhance overall wellbeing.

How It Works:

- Key Features:

Apollo Neuro uses vibrations to deliver touch therapy that helps the body regulate stress and recover. It is designed to be worn on the wrist or ankle, providing easy and continuous access to its benefits.

- Unique Selling Points:

Unlike many wellness wearables, Apollo Neuro's effectiveness is backed by independent clinical trials, including double-blind, randomized placebo-controlled crossover trials.

- Scientific Backing:

The device's methodology and results are held to high scientific standards, with significant results validated by independent research funded by reputable sources outside of Apollo Neuroscience.

PRODUCT REVIEW

What Was My Experience:

- Testing the Product: I have been familiar with Apol-Io since its inception, having been among the initial testers during its product launch. Initially, I was quite impressed with the device, although it eventually broke. Recently, I got a new unit and used Apollo Neuro consistently over a sixweek period, testing its impact on various health aspects by wearing it both during the day to enhance focus and at night to improve sleep quality.

The device is discreet and comfortable, and I soon began to notice subtle improvements in my stress levels and



sleep patterns. Throughout the testing period, I observed measurable enhancements in my heart rate variability (HRV) and overall sleep quality, which were confirmed by data from other health tracking devices I use.

Particularly during workouts, I found that using Apollo Neuro helped me maintain focus and stay calm, significantly enhancing my performance. Apollo Neuro marks a substantial progression in the field of wellness wearables, providing a scientifically supported, effective means of improving mental and physical health. With its strong scientific foundation and proven real-world benefits, it stands out as an excellent choice for those committed to improving their wellbeing. For anyone seeking a non-invasive way to manage stress, enhance sleep, and support general health, Apollo Neuro is an exceptional option.

- Pros and Cons:

Pros include the scientifically validated approach, effectiveness in improving several health markers, and ease of use.

Cons might be the app use but still not bad at all.



APOLLO

@apolloneuro

MyVitalC:

Revolutionizing Wellness with ESS60 & Olive Oil



MyVitalC is a precise formulation designed to enhance longevity and overall wellness. Utilizing the highest purity ESS60 dissolved in top-tier organic extra virgin olive oil, this product promises profound health benefits, backed by intriguing research.

Why It Was Made:

- Product Introduction:

MyVitalC combines ESS60, a potent antioxidant, with certified organic olive oil, aiming to offer a health supplement that could potentially extend life based on early scientific research.

- Brand and Variations:

The product is the brainchild of SES Research Inc., renowned for its pioneering work with ESS60. MyVitalC is available in medical-grade cobalt blue bottles to ensure preservation of its potent ingredients.

- Relevance to Health and Wellness:

Given the increasing interest in longevity and anti-aging, MyVitalC is highly relevant. The current B.O.S.S. theory (buffering oxidative stress system) has the ESS60 molecule in the mitochondria preventing oxidative damage, this makes ESS60 a unique sub-cellular anti-oxidant. This may explain the longevity and reported focus, energy, and sleep benefits

How It Works:

- Key Features and Ingredients:

Each bottle of MyVitalC contains ESS60 in high-quality organic extra virgin olive oil, known for its superior taste and health properties. This formulation ensures optimal absorption and effectiveness.

- Unique Selling Points:

The meticulous preparation process—stirring in the dark, temperature-controlled conditions, and inert gas buffering—distinguishes MyVitalC from other supplements.

- Scientific Backing:

The potential of ESS60 to significantly extend lifespan was highlighted in a landmark 2012 Paris rat study, the longest longevity experimental result on mammals in history. This study showed a full 90% extension of life.

What Was My Experience:

- Testing the Product:

Over a period of one month, I consumed MyVitalC daily, adhering closely to the recommended dosage to thoroughly assess its effects on my overall health

and vitality. Initially, I noted a subtle increase in energy levels and a smoother digestion process, possibly due to the high-quality olive oil used.

Effectiveness Evaluation:

While the long-term benefits such as life extension cannot be directly measured in a short trial, the short-term benefits to well-being were evident.

During the test period, a noticeable improvement in my skin condition was an unexpected and welcome change, aligning with the antioxidant properties of ESS60.

MyVitalC presents itself as a premium supplement that could potentially play a significant role in enhancing longevity and overall health. Its combination of high-guality olive oil and the promising antioxidant ESS60, supported by scientific research, makes it a compelling choice for health enthusiasts looking for an edge in their wellness routine. While the long-term life-extending effects are yet to be proven in humans, the immediate benefits to well-being make MyVitalC a worthwhile investment for those committed to their health.

- Pros and Cons:

Pros include the quality of ingredients and the rigorous manufacturing process.

Con is the high cost, which may be prohibitive for some users.







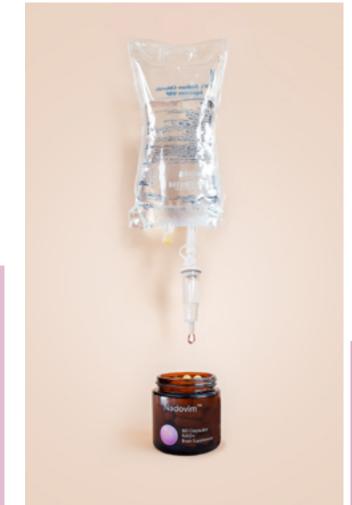
<u>@myvitalc</u>

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Navodim:

Energizing the Mind with NAD+

Imagine a product designed to fire up your brain's energy production capabilities—meet Navodim. This supplement promises a powerful boost to cognitive function through a carefully selected blend of ingredients, including the coenzyme NAD+ and various supportive nutrients. - The Quantified Cyborg Monthly Review



Why It Was Made:

- Product Introduction:

Navodim is crafted to support the brain's energy mechanisms. With a formulation rich in NAD+, herbs, minerals, amino acids, and vitamins, it targets the enhancement of cognitive functions.

PRODUCT REVIEW

- Brand and Variations:

Developed by a brand committed to brain health, Navodim stands out with its specialized focus on enhancing cellular energy production. Currently offered in a standard dosage, it caters to those seeking mental clarity and improved focus.

- Relevance to Health and Wellness:

In a world where mental agility can dictate personal and professional success, Navodim is highly relevant. It addresses the growing demand for natural cognitive enhancers in the health and wellness niche.

How It Works:

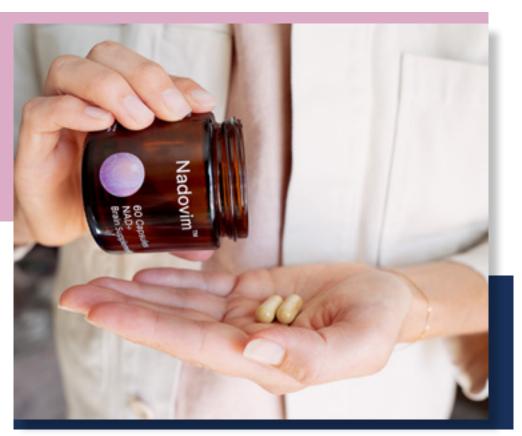
- Key Features and Ingredients:

Navodim's blend includes NAD+, essential for mitochondrial function, alongside synergistic herbs and nutrients that enhance its bioavailability and cognitive benefits.

- Unique Selling Points: What sets Navodim apart is its comprehensive approach to cognitive health, combining traditional vitamins with advanced bioactive compounds for a multi-layered effect.
- Scientific Backing: Research & publications have demonstrated the efficacy of NAD+ in supporting cognitive health, with studies suggesting improved energy metabolism in brain cells.

What Was My Experience:

- Testing the Product: Over a four-week period, I took two capsules daily. This regimen provided a



sustained opportunity to gauge its impacts under various mental demands from intense workdays to high-pressure decision-making scenarios.

- Personal Experience:

Initially skeptical, since I'm more used to NAD subcutaneous or Lyposomal, I noted a subtle yet noticeable uplift in my mental stamina and clarity within the first two weeks. This was particularly evident during afternoon slumps, which became less pronounced.

- Effectiveness Evaluation:

Navodim lived up to its promises to some extent. While the effects were not revolutionary, the incremental enhancement in focus and energy was appreciable. Navodim is a commendable ally for anyone looking to support their brain health naturally. Ideal for professionals and students, its benefits of enhanced mental energy and focus are genuine, albeit subtle. As with any supplement, results may vary, but for those seeking a natural cognitive boost, Navodim is certainly worth considering.

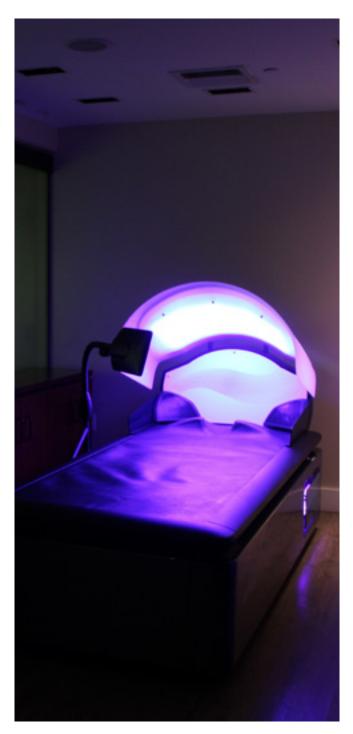
- Pros and Cons: Pros include improved mental clarity and energy.

Cons are the premium price and the mild initial gastrointestinal adjustment.

navodim.com

Wellsystem:

The Rise of Touchless Dry Water Massage



- The Quantified Cyborg Monthly Review

In a tranquil and Zen corner of the Carillon Wellness Hotel in Miami Beach, a new era of massage therapy is making waves—quite literally. This week, I had the distinct pleasure of experiencing the Wellsystem Wave, a groundbreaking approach to relaxation that marries technology and tranquility in a touchless format.



Why It Was Made:

This innovative treatment, known as the dry water massage, is particularly captivating for those who prefer not to be touched or are exclusively committed to hands-free relaxation methods.

Dry Water Massage: Its not Water in Powder!

PRODUCT REVIEW

How It Works:

The Wellsystem Wave utilizes a unique method known as dry water massage. This technique involves warm water jets that move under a soft natural rubber surface where the user lies down, fully clothed, and experiences a contactless full or partial body massage. The warmth and motion of the water aim to mimic the hands of a masseuse, providing a deeply relaxing and therapeutic experience.

Dry water massage, a technology pioneered by Wellsystem, combines the therapeutic power of warm water jets with the comfort of remaining dry and clothed. Imagine lying back on a bed equipped with a soft natural rubber surface. Beneath this layer, warm jets of water move rhythmically, mimicking the hands of a masseuse with precision and warmth. The sensation is akin to floating weightlessly while receiving a full or partial body massage-without direct contact.

In our fast-paced world, stress, poor posture, and a sedentary lifestyle often lead



@wellsystem.hydrojet

to discomfort and pain, particularly in the neck, shoulders, and back. Wellsystem's dry water massage addresses these issues head-on by activating deep tissue layers and loosening tense muscles through a combination of heat and water pressure. The benefits extend beyond the massage table, promoting long-term wellness and physical vitality.

Benefits

- Touchless Massage: Ideal for individuals who are uncomfortable with physical touch or prefer a hands-free massage experience.

- Hygienic Solution: As a touchless system, it offers an exceptionally clean and safe environment, reducing the risk of germ transmission.

-Deep Tissue Activation: The warm jets target deep tissue layers, effectively loosening tight muscles and reducing stress.

- Customizable Settings: Users can adjust the intensity and area of the massage, allowing for a tailored experience that meets their specific relaxation needs.

What Was My Experience:

Lying on the Wellsystem Wave, I felt a sense of weightlessness as the water jets began their choreographed dance beneath me. The sensation was akin to floating on a warm cloud, with waves of relaxation pulsing through my body. The massage was thorough, reaching areas that are often tense from daily stress or poor pos-

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ture. The heat was comforting, not overpowering, and the overall experience was deeply soothing.

Performance

The dry water massage effectively alleviated the tension in my neck, shoulders, and back. The touchless nature of the massage meant that I could relax fully without the self-consciousness or discomfort that sometimes comes with traditional massages. Post-session, I felt rejuvenated and more flexible, with a noticeable reduction in stress levels.

Pros and Cons

- Pros:

- Non-invasive and hygienic

- Deeply relaxing and
- stress-relieving

- Adjustable settings for personalized comfort

- Cons:

- Accessibility might be limited to specific wellness centers or hotels

- Some users might prefer the tactile feedback of a traditional massage

The Wellsystem Wave represents a significant innovation in the realm of massage therapy. Its touchless, hygienic approach makes it a compelling option for those seeking relief from muscular pain and stress without the need for direct physical interaction. For anyone exploring modern wellness solutions, the Wellsystem offers a futuristic and effective way to relax and rejuvenate.

WellWater O+: <u>Harmonizing Health with</u> <u>Your Circadian Rhythm</u>

- The Quantified Cyborg Monthly Review

WellWater O+ emerges as a groundbreaking supplement designed to align with your body's natural circadian rhythms, offering tailored support from sunrise to sunset. These 3 drink promises to deliver continuous health benefits throughout the day, powered by a thoughtful blend of natural ingredients, vitamins, and minerals.

Why It Was Made:

- Product Introduction:

WellWater O+ is a meticulously formulated supplement designed to support different phases of your daily cycle—morning, mid-day, and evening—with specific benefits to match.

- Brand and Variations:

The brand behind WellWater O+ focuses on integrating holistic wellness with daily hydration, providing a product that supports overall health without compromising on natural ingredients and flavor.

- Relevance to Health and Wellness:

Addressing everything from energy levels and mental clarity to stress management and detoxification, WellWater O+ is highly relevant for anyone seeking an all-in-one solution to support their body's natural rhythms.

How It Works:

- Key Features and Ingredients: Each serving of WellWater O+ is enriched



with natural caffeine, PQQ, CoQ10, key B vitamins for the morning; NAD+ for mid-day focus; and L-Glutathione for evening recovery, among other vital nutrients.

- Unique Selling Points:

The supplement's unique selling point is its formulation based on the circadian rhythm, ensuring that the body receives what it needs exactly when it needs it throughout the day.

- Scientific Backing:

The inclusion of ingredients like NAD+ for cellular health and antioxidants for immune

support is supported by numerous studies highlighting their benefits in relation to body rhythms and overall health.

What Was My Experience:

- Testing the Product:

I integrated WellWater O+ into my daily routine, consuming it as directed at different times of the day for a full month to test its effectiveness across its varied claims. The morning formula provided a noticeable energy boost without the crash often associated with caffeine, ideal for my calisthenics workouts, while the mid-day serving genuinely seemed to enhance focus and reduce fatigue, thus ideal for my business-related works.

- Effectiveness Evaluation:

The evening ingredients promoted relaxation and appeared to support better sleep quality, which was a significant benefit. Notably, during a particularly stressful week, I felt that WellWater O+ helped maintain my energy levels and mental clarity, which might otherwise have dwindled. WellWater O+ stands out as a uniquely comprehensive solution for those looking to align their dietary intake more closely with their body's natural rhythms. Suitable for anyone from busy professionals to health enthusiasts, it offers a practical way to support various bodily functions effectively and naturally throughout the day. For those seeking an all-encompassing supplement that supports from morning to night, WellWater O+ is a promising choice.

- Pros and Cons:

Pros include comprehensive all-day support, high-quality ingredients, and zero sugars or artificial additives.

Con could be the premium price and the need to consume multiple servings throughout the day for optimal benefits. But the latter is manageable.





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Exploring the Fusion of Wellness and Innovation at Creators House 4.0

by Hofit Golan & Alvaro Nunez



Biohackers Magazine had the privilege of attending the exclusive wellness weekend retreat Hosted by Alvaro Nunez (@alvaronunez) and Hofit Golan (@hofitgolanofficial), in partnership with Super Luxury Group @superluxurygroup). This event, part of the Content Creator House series, was meticulously designed to blend luxury with the pioneering spirit of wellness and health innovation.

The primary aim of Creators House 4.0 was to assemble influencers from around the globe to craft and share engaging content across multiple platforms—videos, photos, stories, and reels. The focus was on promoting wellness and health and the avant-garde practices of biohacking and the innovative brands contributing to the event.

Participants had the opportunity to indulge in a diverse array of wellness activities. The retreat offered sessions in ture of medicine to strategies Yoga, Breathwork, Meditation, and Cold Plunges, alongside more vigorous options like the science of aging and the Cardio Boxing. Cutting-edge overarching goal of unleashing

therapies such as Light Therapy, Hydrogen Therapy, and traditional Sauna sessions were available, providing a holistic approach to physical and mental well-being.

Moreover, the event featured enlightening keynote speeches delivered by thought leaders and experts. Topics spanned the gamut from Stem Cell research and the fufor achieving optimal health. Discussions also delved into

human potential, aligning perfectly with the forward-thinking ethos of the attendees and organizers alike.

Explore the exceptional brands that participated in this event, offering cutting-edge science for health and overall well-being: Squatz Fitness, Cenegenics, My Smile Body, Weber Laser, Iyashi Dome, Matera Club, Centner Wellness, Axiom H2, Echo H2 Water, The Cold Life, Drink AG1, Raway Chocolates, The Protein Donut, Serene Life Home, Pyle USA, Orga Health, Eating by V and many others.

Attention, Miami! We're curating something ultra-luxurious and extraordinary for our community. Embark on a journey into biohacking and wellness heaven in Islamorada, Florida Keys, just 90 minutes from Miami International Airport, at the most opulent destination: Chateau on the Ocean - @chateauontheocean. Stay updated on the upcoming events by following Content Creator House <u>@Content-</u> <u>CreatorHouse</u> on Instagram.

Pros: Location & Setup Attendees Speeches Vibes

Con: The Heat of Miami



'If you want to go fast, go alone; if you want to go far, go together.'

- African Proverb





Hofit Golan

A media powerhouse, Hofit Golan reigns as a threetime Forbes Influencer of the Year, with over +3.6M verified followers on Instagram. Renowned for her expertise in media, branding, and social media, she has garnered 8 awards for her pioneering work. As a lifestyle influencer and TV presenter, she captivates audiences worldwide with her flair for fashion, travel, and lifestyle.



Alvaro Nunez



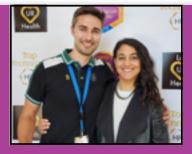
A beacon of health and inspiration, Alvaro Nunez stands as the Best Healthy Lifestyle Influencer of the Year with +1M followers on social media. Founder & CEO at Super Luxury Group, he's a bestselling author and keynote speaker. A daring adventurer, he's conquered the Ironman World Championship and won the last Ultra Man, scaled the skies as a helicopter pilot, and triumphed in the grueling Marathon Des Sables, showcasing his boundless spirit and relentless pursuit of excellence.

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A Journey into Transformation:

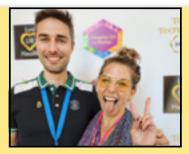
The "Changing Life & Destiny" conference in Dallas brought together a dynamic community of health and wellness professionals, speakers, and practitioners dedicated to transforming people's lives. The event served as a platform for sharing innovative health solutions, holistic practices, and community-driven approaches to wellness. Here are highlights from the conference, with insights and quotes from key speakers:



Roxy Pirnia

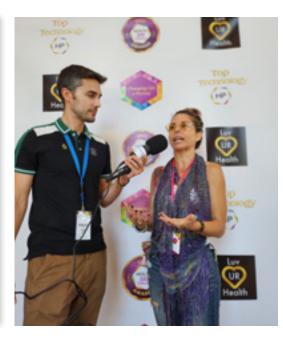
Roxy, co-founder of the <u>CLD conference</u>, spoke passionately about the need for preventative healthcare. "We want to move to a preventative model where we're addressing root causes," she said. Roxy's mission focuses on bringing holistic health solutions to as many people as possible. "We have a hundred top technologies and programs that are really helping people achieve holistic healthcare," she explained, highlighting the conference's role in showcasing diverse approaches to wellness.

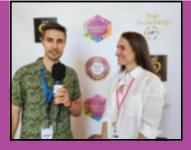




Dr. Lauren Leiva

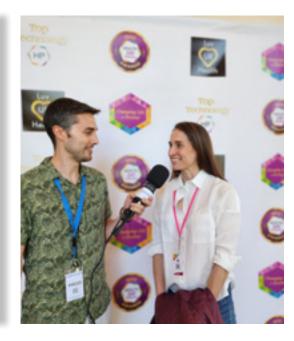
Dr. Lauren Leiva, founder of the Exerscience Center, emphasized the importance of incorporating the latest technology in her practice. "What I love about going to these conferences is that technology keeps upgrading," she shared. Dr. Leiva stressed the need to constantly update and refine tools used in her clinic, advocating for a proactive and evolving approach to healthcare. "We do a really good patient history, making sure they don't have contraindications for treatment," she said, highlighting the importance of clinical reasoning in ensuring safe and effective therapies.

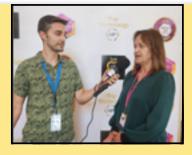




Elizabeth Grojean

Elizabeth, founder of <u>Baloo Living</u>, underscored the significance of sleep in overall health. "Sleep is one of the pillars of health," she noted, introducing her company's weighted blankets as a medication-free solution to improve sleep quality. "They're working through the mechanism called deep pressure touch," Elizabeth explained, detailing how the blankets stimulate serotonin and dopamine production, promoting relaxation and reducing stress.





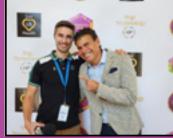
Desiree De Spong

Desiree, founder of <u>Flowpresso</u>, emphasized the value of educating people about lymphatic health. "We can't detox unless we drain," she explained, underscoring the importance of opening up drainage pathways for improved health. Desiree also noted the positive impact of Flowpresso on sleep quality and stress reduction. "We have a 91% improvement in sleep and up to 53% improvement in stress," she shared, highlighting the benefits of the device for overall wellbeing.





Christian Drapeau

Christian, founder of <u>Stemregen</u>, discussed the role of stem cells in tissue repair. "If you have a cold, you stimulate your immune system. If something is broken, you want to stimulate your repair system," he said. Christian's product, Stemregen, aims to increase stem cells in the bloodstream to support the body's natural repair mechanisms. "Within two to three hours, you release an additional 10 million stem cells," he explained, illustrating how the product enhances the body's ability to repair and heal itself. 

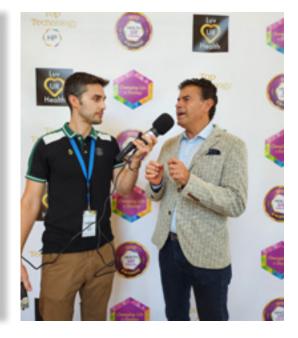
Dr. Fab Mancini

Dr. Fab, a renowned health advocate, <u>(DrFabMancini. com)</u> highlighted the need for a proactive approach to health. "The secret to being healthy is to make better choices today than I made yesterday," he emphasized. Dr. Fab's philosophy of holistic health encompasses physical, mental, and emotional wellbeing. "I bring in some of the best speakers and amazing technologies to create an environment for transformation," he said, referencing his upcoming conferences aimed at helping people lead healthier lives.

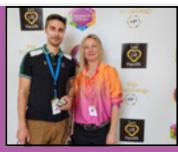


James Barry

James Barry, founder of <u>Pluck</u>, introduced his organ-based seasoning as a gateway to nutritional abundance. "We make it really easy and delicious for you to get organ meats into your diet," he said. James emphasized the nutritional density of organ meats and how Pluck offers a practical solution to nutrient deficiencies. "A lot of low-level ailments are due to nutrient deficiencies," he explained, highlighting how his product helps alleviate chronic issues by providing essential nutrients.

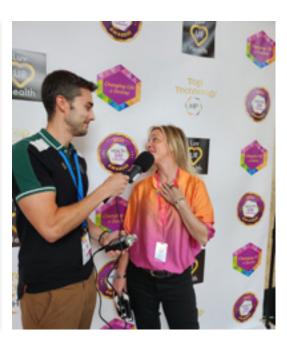


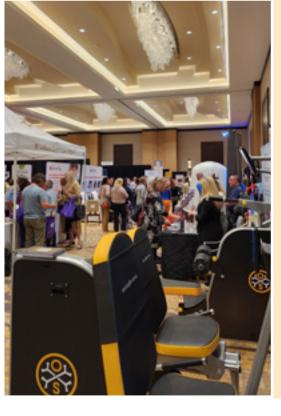




Sarah Turner

Sarah Turner discussed her company, <u>CeraThrive</u>'s red light therapy device, which targets the gut-brain connection. "A lot of neurodegeneration and even addictive personality disorders start with dysregulation of the gut," she said. Sarah's device offers a holistic approach to brain health by simultaneously targeting the brain and abdomen with near-infrared light. "It's simple and practical," she noted, emphasizing the device's portability and ease of use, making it accessible for everyday wellness routines.





The "Changing Life & Destiny" conference was a beacon of inspiration and education, bringing together a diverse community of wellness professionals and advocates. The speakers provided practical solutions, holistic approaches, and innovative tools, underscoring the importance of proactive, balanced health practices.

For attendees and readers alike, the conference served as a reminder that changing life and destiny is a continuous journey, one that can be shaped by holistic health, innovative technology, and community support. The event reaffirmed that transformation is within reach, encouraging participants to embrace health and wellness as an ongoing endeavor.

For more information on the conference and upcoming events, visit the <u>Changing Life & Destiny</u> <u>website</u> and stay tuned for updates.



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INTERVIEW WITH CHRISTIAN DRAPEAU Jean Fallacara: Christian, it's exciting to see Stemregen as the official sponsor of the 10th Biohacking Conference in Dallas. You're launching three intriguing products: MOBILIZE, SIGNAL, and RELEASE. Can you tell us about the inspiration behind these innovations?

Christian Drapeau: Absolutely, and thank you for having me. The inspiration comes from understanding the body's natural mechanisms, especially how stem cells operate in tissue repair and overall health. We've focused on enhancing these natural processes through scientificallybacked natural compounds, helping individuals optimize their body's repair system and overall well-being.

Jean Fallacara: Starting with MOBILIZE, you've emphasized improving microcirculation. Why is this a focal point for stem cell efficacy?

Christian Drapeau:

Microcirculation is crucial because it directly impacts the delivery of stem cells to tissues requiring repair. MOBILIZE is designed to enhance this by reducing blood fibrin levels, which thickens blood, and by using nitric oxide producers to dilate capillaries. This ensures that stem cells can reach and penetrate even the smallest capillaries, which are often narrower than the cells themselves. SIGNAL also contains polysaccharides to help maintain the endothelial glycocalyx and biofavlonoids to maintain capillarity integrity.

Jean Fallacara: Moving on to SIGNAL, can you explain the concept of "noise" in the bloodstream and how this product addresses that?

Christian Drapeau: Certainly. Systemic inflammation is caused over time by the presence of several sites of damage in the body that do not fully repair. These areas end up overproducing certain signaling molecules, creating a sort of biochemical noise that confuses stem cells and impedes their ability to locate and repair damaged tissues. SIGNAL contains ingredients like bromelain and phycocyanin, which help to clear this noise, enhancing the stem cells' ability to migrate effectively to the sites where they are most needed.

Jean Fallacara: RELEASE seems to be a comprehensive approach to boosting stem cell numbers and functionality. Could you elaborate on how this product supports the body's natural repair system?

Christian Drapeau: Of course. As we age, the natural release of stem cells diminishes significantly, which is a factor in aging and the loss of health as we age. RELEASE boosts the number of stem cells available by supporting the release from the bone marrow.



Ingredients like beta-glucans and colostrum are included to support the migration of these stem cells into tissues, enhancing the body's inherent ability to repair and maintain itself. And we also have a SPORT version that has been NSF certified for athletes. This way professional athletes can also tap into the repair power of their own stem cells.

Jean Fallacara: With these products, you're targeting different aspects of stem cell function. How do you envision these products changing the landscape of personal health management?

Christian Drapeau: We're entering an era where we can actively enhance and support our body's natural mechanisms rather than just addressing symptoms of decline or disease. By improving how stem cells are released, circulated, and signaled, boosting repair, we're opening up possibilities for individuals





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to proactively manage their health and aging process more effectively, potentially delaying or mitigating the onset of agerelated issues.

Jean Fallacara: Thank you, Christian, for sharing these insights. It sounds like these products not only represent a significant advancement in biohacking but also align closely with the principles of enhancing life quality through science.





Christian Drapeau: Absolutely, and thank you. We're excited about the potential of these products to make a real difference in people's lives, and we're thrilled to introduce them here at Dave Asprey's Biohacking Conference.

FIND OUT MORE AT: STEMREGEN.CO





ABOUT CHRISTIAN DRAPEAU



Christian Drapeau is a scientist, author, medicinal plant expert, and pioneer in the field of stem cell research. He holds a graduate degree in Neurophysiology and has been involved in medical research for 30+ years, the last 20 specifically dedicated to stem cells. He pioneered the understanding that stem cells constitute the body's natural healing and repair system and has traveled the world in search of the most powerful plants that support stem cell function and enhance the body's regenerative potential.

Having written 5 books, including the best-selling "Cracking the Stem Cell Code," as well as dozens of published scientific papers on brain research and the biological process he coined "Endogenous Stem Cell Mobilization" and having lectured in 50+ countries, Drapeau is known by scientists, physicians, and biohackers alike as an expert and pioneer of his field. A scientific advisor to many companies, he is currently the Founder and Chief Science Officer at <u>STEMREGEN</u> where he developed the most potent

natural stem cell supplement.

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"BOUNDLESS PARENTING" by BEN GREENFIELD

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ACKNOWLEDGMENTS

Everyone involved in the production of this magazine is humbled by the opportunity to have a publication that makes a real difference. Our magazine is woven into the fabric of our community and we recognize the importance of being culturally relevant, authentic at all times, and genuinely passionate about living well, living fit, and living long. Thank you to our contributors, partners and circle of friends for joining us in *extending the future*.

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