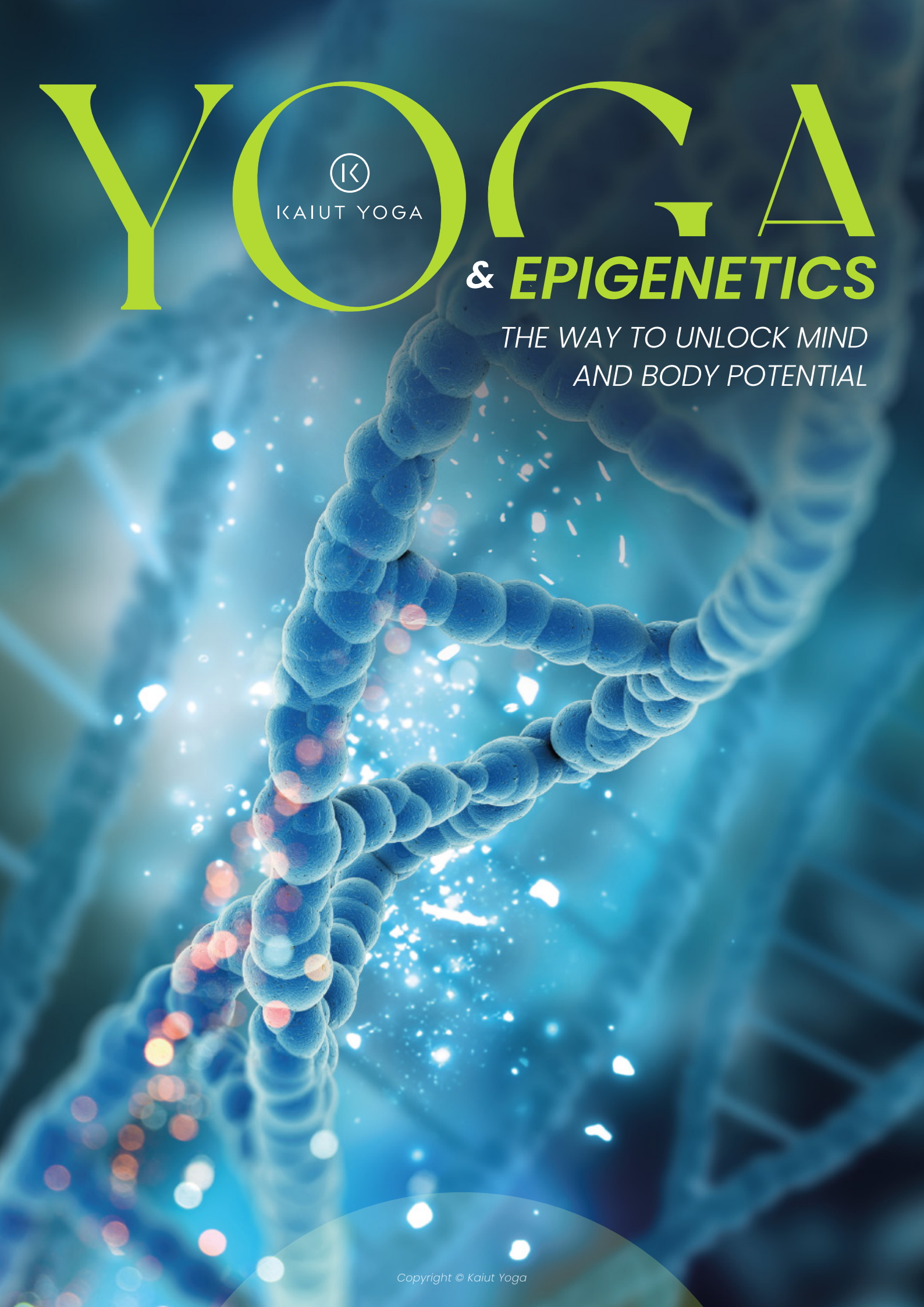


In my classes or conversations with Kaiut Yoga Method students, I always talk about the power of yoga to build health. I reinforce the following concepts: Activity makes our body more available to us with more strength and power. Each position has a function to nourish and treat our vertebrae. Mental well-being is the result of the release of neurotransmitters that communicate with our nerve cells. The effects of our practice includes reduced chronic stress and help in combatting disease. There are, of course, countless other benefits that a consistent yoga practice brings.

I also explain that to achieve all this and more, it is necessary to maintain a consistent practice and, for those who still have doubts, I share some insights and knowledge found in scientific studies that validate what I have learned over three decades in classrooms and in the practical application of yoga to my own body.

I have been surprised by the volume of scientific research on yoga and health, which indicates that the academic world has dedicated itself to studying the effects of this ancient practice on our health and well-being. One of the topics that has attracted my attention for a few years now is epigenetics and its relationship with yoga. Epigenetics is an area of study dedicated to understanding how factors in our in our environment can turn gene expression on or off. It explains how a lived experience can cause changes in our body by affecting our DNA without changing its sequence.

From the study of epigenetics we now have the understanding that, contrary to what was imagined decades ago, gene expression is not immutable. Chemical events at the cellular level are related to how the human body reacts to lived experiences. We now have the tools to better understand how environmental factors affect our body.

In our everyday lives, experiences in adverse situations reflect in our bodies through chemical changes at the molecular level reacting to environmental input. This impact of non-material experiences on the molecular matter of our bodies intrigues scientists, and many researchers are analyzing the practice of yoga, a mind-body therapy, to understand how these reflexes occur in the body and how experience affects gene expression. Scientists are working to understand more deeply what causes environmental factors to impact the physical body and what role the mind has as a fundamental link for this to happen. Advances in this line of research are contributing to a deeper understanding of integrative medicine.

Studies evaluate how epigenetic mechanisms determine which genes are activated and converted into proteins, or which are silenced. Proteins are essential for the functioning of the human body and genetic coding determines which proteins will be produced and when. This protein production influences the formation of the phenotype—the observable characteristics of the human being, such as physical appearance, skin color, height, susceptibility to diseases, and other characteristics. We experience epigenetic transformations—the turning on or off of genetic expression based on environmental input—at all stages of life, from childhood to adulthood.

According to researchers at the Center for Child Development at Harvard, during development, the DNA that makes up our genes accumulates chemical markers that determine the amount of genes that will be expressed. These markers are known as epigenome. The different experiences that each child has reorganize their chemical markers. The

reorganization of chemical markers based on experiences explains why identical twins have different behaviors, abilities, health, and achievements despite identical genetic characteristics inherited from their parents. Even genetic inheritance does not define the development of the child.

Variations in DNA sequences influence how genes are expressed and how the proteins encoded by those genes will function. However, the environment in which a child develops, before and shortly after birth, generates strong experiences that cause chemical modifications in certain genes and defines how much and when genes are expressed.

Genetic factors define some of our characteristics, but environmental factors can alter the genes we inherit. Adverse experiences that occur in early childhood lead to physical and chemical changes in the brain and can have lifelong effects. The Harvard study reveals that malnutrition, exposure to chemical drugs, and toxic stress become part of the architecture of the developing brain through the epigenome.

The impact of these negative "biological memories" caused by epigenetic alterations is so great that it can affect multiple organ systems and increase the risk of poor physical and mental health outcomes, as well as impairments in future behavior and learning ability. The Harvard study also reveals that the epigenome can be affected by both positive and negative experiences. Both leave a kind of unique epigenetic signature in the genes. These signatures can be temporary or permanent, and both affect how easily genes are turned on or off.

What research shows is that the best way to reverse certain negative experiences in early childhood is to support responsive relationships and reduce stress early in life, helping children to grow into healthy, productive members of society. As for adults highly impacted by the environment and lifestyle of modern society, I, and some scientists, also recommend the practice of yoga to influence gene expression toward the positive.

The relationship between yoga and the field of epigenetics is interesting and complex. Yoga is an ancient practice involving a series of postures combined with breathing techniques that have been proven to improve physical, mental, and spiritual health. In fact, the practice is associated with many health benefits, including reduced stress, improved cardiovascular function, gains in flexibility and balance, and reduced chronic pain. Yoga can also affect the expression of our genes through epigenetic changes. Studies demonstrate that regular yoga practice is associated with changes in DNA methylation, an epigenetic process that can affect the expression of genes related to the immune system response or of genes linked to oxidative stress, inflammatory processes, and metabolism.

"[...] TALVEZ VOCÊ NÃO SAIBA, MAS EM SEU DIA A DIA, OS MEDOS E AS SITUAÇÕES ADVERSAS ACABAM REFLETINDO NO SEU CORPO POR CONTA DE ALTERAÇÕES QUÍMICAS [...] SIM, É O IMPACTO DE ALGO NÃO MATERIAL SOBRE A MATÉRIA, O QUE INTRIGA A MUITOS CIENTISTAS..."

In the relationship between yoga and epigenetic changes, the brain plays an important role. According to studies, yoga can affect the structure and function of the brain and influence the expression of genes. This is because a consistency in yoga practice triggers changes in neural connectivity in areas associated with the regulation of emotions, sensory processing, and attention. In this e-book, I'm going to explore a little more about the relationship between yoga and epigenetic changes to gene expression to show how the practice can have deeper and more powerful effects than we've ever dared imagine.

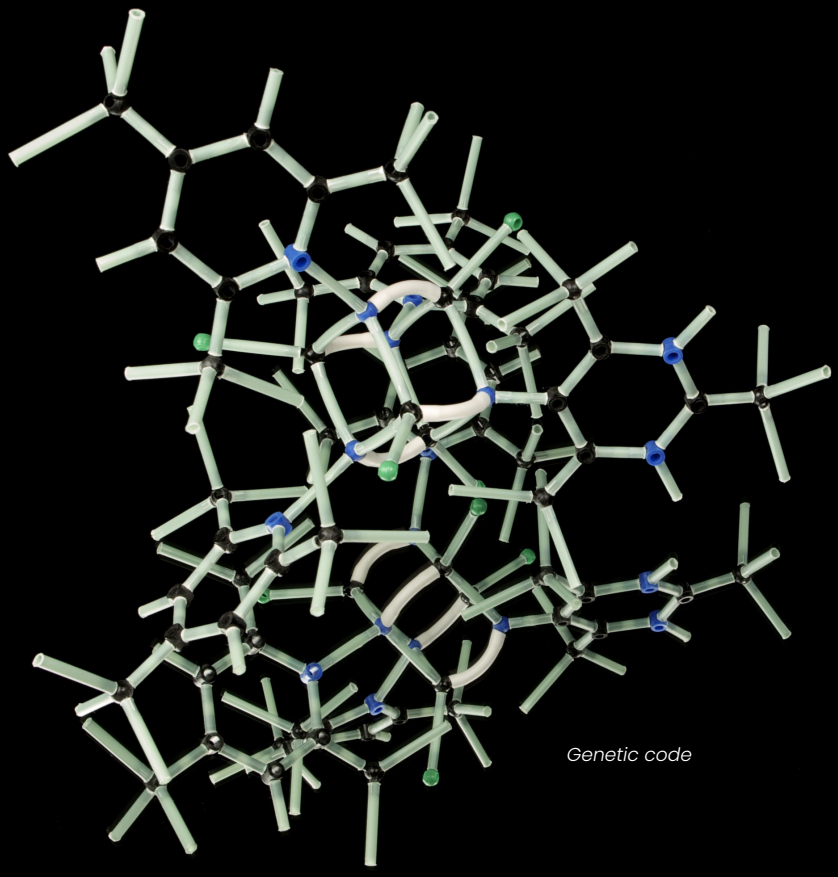
Epigenetic changes in our gene expression concerns our genes being exposed to environmental factors. From this idea the following question arises: What is the environment to which we are most constantly exposed? Our most consistent environment is our internal environment—the result of our thoughts, emotions, and how we feel. Our internal environment is directly impacted by our yoga practice from the way we learn to be present, to live in meditation, and to establish more constructive and healthy processes in our mind and emotions. Our internal environment is our most consistent environment and it shapes our gene expression with great frequency.

Good reading!

Francisco Kaiut

MUCH MORE than GENETICS

The etymology of the word epigenetics gives us clues about the meaning of this new area of study. Originating in ancient Greek, epi means “above” or “over” and genetics refers to heredity and the transmission of genetic characteristics. The term is understood as "above genetics," that is, changes in the functioning of genes that are caused not by alterations in the DNA sequence, but by external factors in the environment or by lifestyle choices. Our internal environment of thoughts and emotions may be one of the mechanisms that trigger these changes. Our thoughts and emotions can shape our gene expression in either a positive or a negative way.



Genetic code

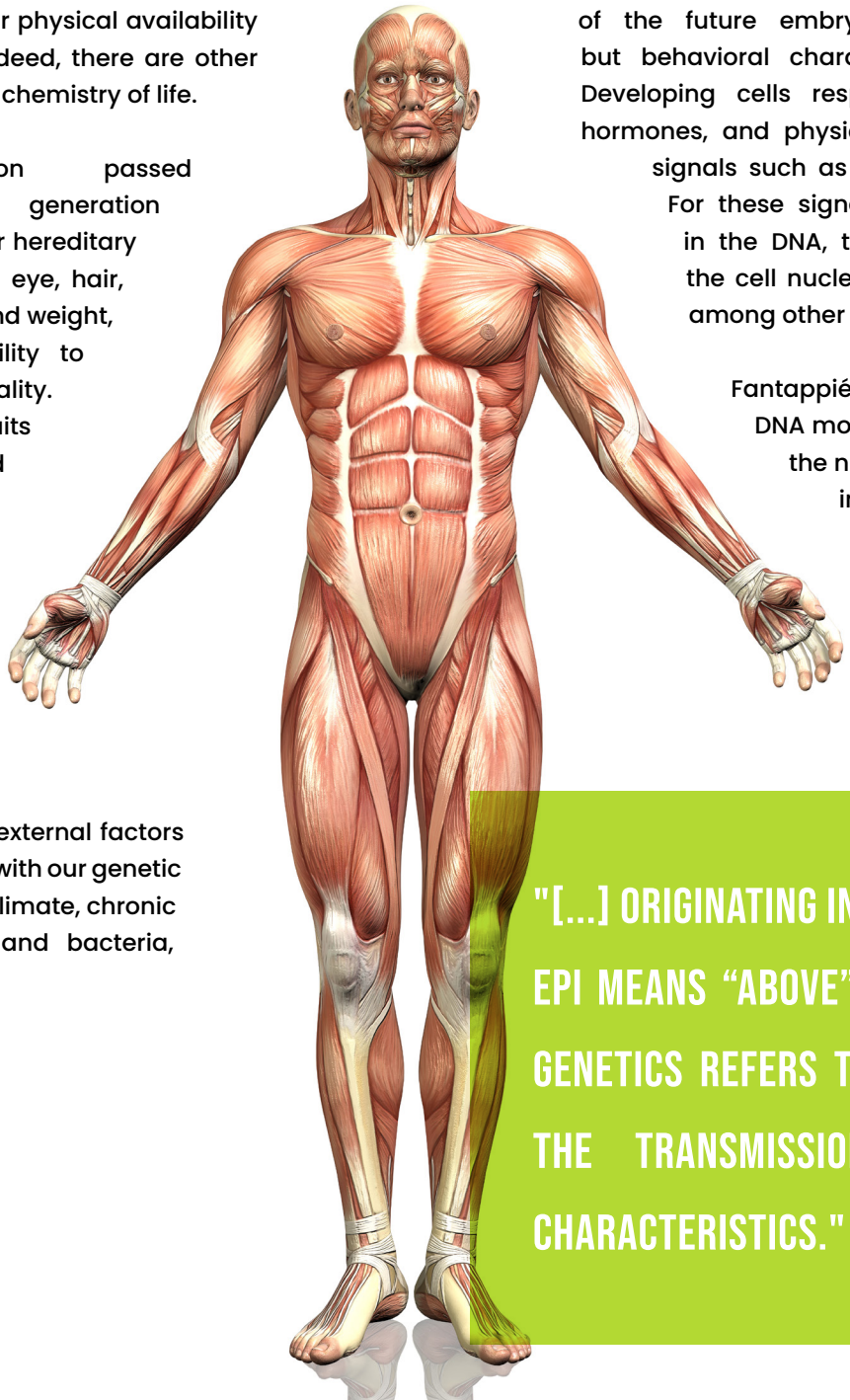
In the 1940s, British biologist Conrad Waddington used the word epigenetics to argue that there is a connection between genes and external environmental conditions that act on them. Since then, the term has been broadened to include a variety of biological processes affecting genes, including the regulation of gene expression in adult cells, genetic adaptation to environmental changes, and the transmission of adapted genetic information from one generation to the next.

What the field of epigenetics tells us is that our health does not depend solely on genetic factors and the inheritance we receive from our ancestors. The maxim that you have “good genes” does not directly translate to your physical availability or even your health. Indeed, there are other elements at work in this chemistry of life.

Genetic information passed from generation to generation determines many of our hereditary characteristics such as eye, hair, and skin color, height and weight, blood type, susceptibility to disease, and personality. However, most traits are not determined by a single gene, but by several genes and through complex interactions between them and the influence of environmental factors. We are continually exposed to external factors that have nothing to do with our genetic heritage such as food, climate, chronic stress, drugs, viruses and bacteria, living conditions, medications and lifestyle. However, with the knowledge of epigenetic adaptation it is now possible to intentionally overcome some of these factors, helping us to adapt and even transform our gene expression.

In an article published in Revista Carbono, Marcelo Fantappié, professor at the Federal University of Rio de Janeiro and researcher at the Laboratory of Helminthology and Molecular Entomology at the Institute of Medical Biochemistry, explains that after fertilization of the egg by the sperm, developing cells begin to pick up signals from neighboring cells (including the mother's) that determine not only the morphology and physiology of the future embryo and individual, but behavioral characteristics as well. Developing cells respond to nutrients, hormones, and physical and behavioral signals such as stress or affection. For these signals to be recorded in the DNA, they need to reach the cell nucleus where DNA lives among other molecules.

Fantappié explains that the DNA molecule is larger than the nucleus itself, so to fit inside the nucleus, nuclear proteins



"[...] ORIGINATING IN ANCIENT GREEK, EPI MEANS “ABOVE” OR “OVER” AND GENETICS REFERS TO HEREDITY AND THE TRANSMISSION OF GENETIC CHARACTERISTICS."

called histones are encapsulated in structures called nucleosomes. In an analogy, it would be similar to wrapped thread (DNA) around a spool (histones). Many genes need to be expressed as proteins for cells to function properly, but if the DNA remains fully coiled, the genes cannot be expressed. Epigenetics changes come into play in regulating how genes are expressed.

For genes to be expressed, the DNA molecule needs to be unpacked so that the genes are accessible to the action of proteins. However, different genes are expressed at different times and are located in different regions of the DNA molecule, which requires constant changes in the packaging of the molecule, called "chromosomal remodeling" or "chromatin remodeling".
This constant remodeling occurs precisely because of epigenetic changes—the chemical alterations that occur in the DNA molecule and in the histones and are carried out by enzymes. DNA methylation, which occurs in regions that control gene expression, is related to gene repression, while histone acetylation is generally related to gene activation.

According to Fantappié's study, the addition of a methyl group to the DNA molecule leads to the silencing of several genes, which can impact the shape and function of cells and organisms without altering the corresponding DNA. This gene silencing process is part of an evolutionary strategy that results in good cell functioning (homeostasis) and a healthy organism. If this model is altered, however, the genes that should have been silenced will be activated, causing some effect on the life and health of an organism. This new epigenetic pattern of gene expression will then be passed down to future generations, becoming an epigenetic memory.

Fantappié also clarifies that the epigenome can change rapidly in response to the signals that the cell receives, allowing an organism to adjust gene expression according to the environment in which it lives. Epigenetic inheritance can transmit experiences lived by parents to future generations without changes in the genome. This has been well demonstrated in studies of families with food shortages, where the grandparents' diet affects the risk of cardiovascular disease and diabetes in their children and grandchildren.

Additionally, studies show that the inheritance of epigenetic gene expression can influence mental health and behavior, as seen in identical twins who differ significantly in their levels of symptoms related to anxiety and depression. Understanding this record of chemical changes, the epigenome, will lead to a better understanding of how the function of the genome is regulated in health and

disease, and how gene expression is influenced by food and the environment.

In contrast with the purely biological view of epigenetics is the work of the North American biologist Bruce Lipton. A pioneer in epigenetic research, Lipton opposes the scientific view that life is controlled by genes. In his works, he defines the existence of molecular pathways that connect the mind and body, a thesis validated by other researchers.

Lipton began his stem cell research at Stanford University. He is the author of The Biology of Belief (2007), in which he argues that the environment can control and even alter the functioning of cells. To prove his thesis, he researched muscular dystrophy and conducted studies using cloned human stem cells focusing on the molecular mechanisms that control cell behavior.

In 1982, Lipton began to examine the principles of quantum physics and how they applied to his understanding of cellular information processing systems. He produced groundbreaking studies on the cell membrane, which revealed that the outer layer of the cell was the organic homologue of a computer chip—the cell's equivalent of a brain. Between 1987 and 1992, Lipton revealed that environmental messages received through the cell membrane controlled the behavior and physiology of the cell, “turning genes on and off.”

Based on his research, Lipton claims that a living organism is conditioned not by its genetic load, as defended by the modern evolutionary synthesis, but by its physical and energetic environment including habits and behavior, diet, physical activities, age and the condition of chromosomal telomeres—the tail end of chromosomes that are responsible for cell aging. He concluded that human beings as living organisms are not determined by their genes but are conditioned by their environment and, above all, by their beliefs or habits, which makes them absolute masters of their destiny. Common diseases, such as diabetes, heart problems, and cancer are the result of the interaction between multiple genes and environmental factors. Lipton argues that the mind is energy, and when we think, we transmit energy that can change some personal aspects of our reality.

One of the studies that confirmed Bruce Lipton's theory was the subject of an article in the German newspaper Deutsche Welle. Researchers from Spain, France, and the United States confirmed that meditation can reduce the expression of genes involved in inflammatory processes. Their study

"[...] EPIGENETIC INHERITANCE CAN TRANSMIT EXPERIENCES LIVED BY PARENTS TO FUTURE GENERATIONS WITHOUT CHANGES IN THE GENOME. THIS HAS BEEN WELL DEMONSTRATED IN STUDIES OF FAMILIES WITH FOOD SHORTAGES, WHERE THE GRANDPARENTS' DIET AFFECTS THE RISK OF CARDIOVASCULAR DISEASE AND DIABETES IN THEIR CHILDREN AND GRANDCHILDREN."

shows that a group of people who practiced deep meditation managed to suppress genes, confirming that it is possible to alter genetic activity by improving one's health status through behavior and thought.

To reach this conclusion, the researchers analyzed a group of participants that practiced meditation. They found that the individuals showed a reduction in the levels of pro-inflammatory genes as well as other alterations in the mechanism of genetic regulation. In addition, participant were able to recover more quickly after stressful situations, linking that behavior to a change occurring within the cells. This is the same conclusion that Lipton proposes— that one's habits and social environment can modulate the functioning of a person's genes.

To me, this makes it clear that while genetics play an important role in our health, environmental factors are also crucial. The environment we live in, our lifestyle choices, and even our thought patterns and beliefs can all have a significant impact on our health. Don't ignore the power of the environment and consider these factors to improve health and prevent disease. When you adopt a lifestyle healthy and take better care of your health, there is potential for more health and well-being, regardless of genes.

YOU CAN MODULATE YOUR GENES

Neuroscientist, chiropractor, and speaker Joe Dispenza explores the science of epigenetics and how it can be used to create positive change in our lives. He claims that our genes are as changeable as our brains and that they are always in flux and being influenced. Some of this change is triggered by experiences and is activated when there is growth, healing, or learning. Other changes in gene expression are triggered by behavior, and are influenced by situations of stress, emotional arousal, or dreams.

Dispenza argues that the existence of epigenetic changes in gene expression gives us a tool to influence the expression of our own genes through our choices of thoughts, emotions, and behaviors. He argues that we have the power to think about changes in our lives and to our bodies in greater depth and we have the free will to activate genetic activity to modify our genetic destiny. He explains that genes are not turned on or off, rather they are activated by chemical signals and are expressed in specific ways by manufacturing various proteins. By simply changing our thoughts, feelings, emotional reactions, and behaviors we are sending new messages to our cells. In response, they express new proteins without changing their genetic blueprint. When we activate a cell with new information, it creates thousands of variations of the same gene. This, Dispenza claims, is how we manage to rewrite our future.

Dispenza draws attention to the importance of taking responsibility for our lives through an awareness of the power of epigenetics and of creating positive changes in our bodies and minds. He encourages readers to explore this fascinating science and discover how they can use it to create a new self.

It's important to point out that epigenetic regulation is something natural and changes in response to environmental factors. I have already mentioned some of these factors, but it is worth emphasizing that pollution, radiation, diet, smoking, disease, trauma, and aging can generate changes in the epigenetic patterns in our DNA. This helps us understand why identical twins can have noticeable outward differences. Even if both twins have a genetic predisposition that increases the chances of a disease, each one's lifestyle choices will influence whether the disease manifests itself or not. It is possible to optimize your health if you know your own genetic variations that indicate the risk of diseases and you understand the way your body reacts to different foods, lifestyle habits, and environmental factors.

A group of North American researchers evaluated the field of epigenetics as a resource for integrative medicine products and practices, which are applied together in therapeutic treatments to balance the body for maximum efficiency and well-being. According to their article, "Epigenetic Mechanisms of Integrative Medicine," despite integrative medicine practices and approaches having their origin in different geographic locations around the world and emerged at different times in history, they maintain some cultural relationships and singularities. Integrative medicine approaches collectively share a common basic mechanistic paradigm; epigenetic landscape modification.

Among the examples cited by the researchers are yoga and acupuncture. Both are mind-body practices with different origins, operating through different elements. Yoga promotes a spatial rearrangement of the body, while acupuncture works through the channeling of energy. Both of these therapeutic modalities can influence epigenetic modification, suggesting why these two ancient practices have gained popularity in recent years.

Researchers point out that a yoga practice invigorates the mind and body, producing changes at the psychological level and consequently helps to reduce risk of cardiovascular disease, promotes better sleep, improves mood, relieves stress, and lowers blood pressure. They argue that these changes are triggered by epigenetic mechanisms. Yoga practitioners can have autonomic responses to stress through self-regulated coping behaviors that help to change their perception of the stressors in their lives. A consistent yoga practice can be an alternative therapeutic approach for the treatment of lifestyle problems such as mood and anxiety disorders caused by epigenetic or environmental factors.

The study also points out that yoga is a practice that, can increase telomere length and telomerase activity, which can delay aging. Telomeres are key to epigenetic regulation. Damage to them can lead to senescence—alterations to our body and mind resulting from the aging processes—through epigenetic mechanisms. The positive health effects of yoga and its anti-aging benefits occur through epigenetic regulation, helping to maintain or extend, telomere length.

EPIGENETICS & YOGA

Mind and body integrative therapies, such as the Kaiut Yoga Method, meditation, mindfulness, and Tai Chi can improve your quality of life by helping you to develop positive thinking to reduce physical and mental suffering, but they also have the power to reverse chemical reactions in your DNA. An article published in the Journal of Complementary and Integrative Medicine reviewed studies to analyze the role of these therapies in reducing epigenetic-triggered changes in DNA.

Researchers began with the knowledge that these therapies bring together healing techniques based on the interaction of cognition, emotions, and behaviors to improve health and physical function and go beyond just reducing stress and anxiety by triggering an epigenetic effect on genes and the parts of our genomes that are implicated in inflammation, stress, and distress.

One of the mechanisms that possibly results in the success of mind-body practices is the promotion of relaxation via a state of presence that generates physical well-being. The article points that these therapies are used worldwide to improve disease prevention, promote healthy lifestyles, and as a complement to traditional medical treatments. All have benefits that expand across ages and conditions, reaching everyone. Interesting data is presented in a National Health Survey of the American Academy of Pediatrics, which ranks mind and body therapies among the top 10 practices of integrative medicine that prove to be effective and safe in reducing pain and discomfort, relieving anxiety, and improving the symptoms of various disorders, such as traumatic stress disorder and fibromyalgia. The research not only shows considerable evidence of the correlation between mind-body therapies and stress and anxiety relief, but also shows a significant effect on human physiology at the genetic and epigenetic level.

The relationship between yoga and the impact of epigenetic changes in gene expression comes from the analysis of a paper published in the International Journal of Yoga that highlighted the importance of epigenetic changes to gene expression in mental and physical health, showing that positive changes in lifestyle can not only improve physical health, but also have a beneficial epigenetic effect that reduces medical problems caused by a sedentary lifestyle and an inadequate diet.

To investigate this correlation, researchers conducted a pilot study of chronically stressed women, comparing DNA methylation patterns of a group that practiced yoga with a control group. The women who participated in the study were randomly selected from a larger group who reported psychological distress.

The yoga intervention group participated in an eight-week program, which consisted of biweekly one-hour sessions. Prior to the biochemical assessment of their DNA, eligible women were required to have had no acute infection for at least two weeks and to abstain from alcohol for at least 48 hours. These restrictions were designed to prevent physiological conditions such as blood cancer, autoimmune diseases, and inflammatory bowel diseases from interfering with the interpretation of biochemical data

The results reveal that the yoga intervention group had a significant decrease in gene methylation compared to the control group. Although the sample was relatively small, this was one of the first studies to explore the relationship between yoga and epigenetics. The study suggests that regular yoga practice can have positive effects on physical and epigenetic health, helping to reduce stress and inflammation in the body.

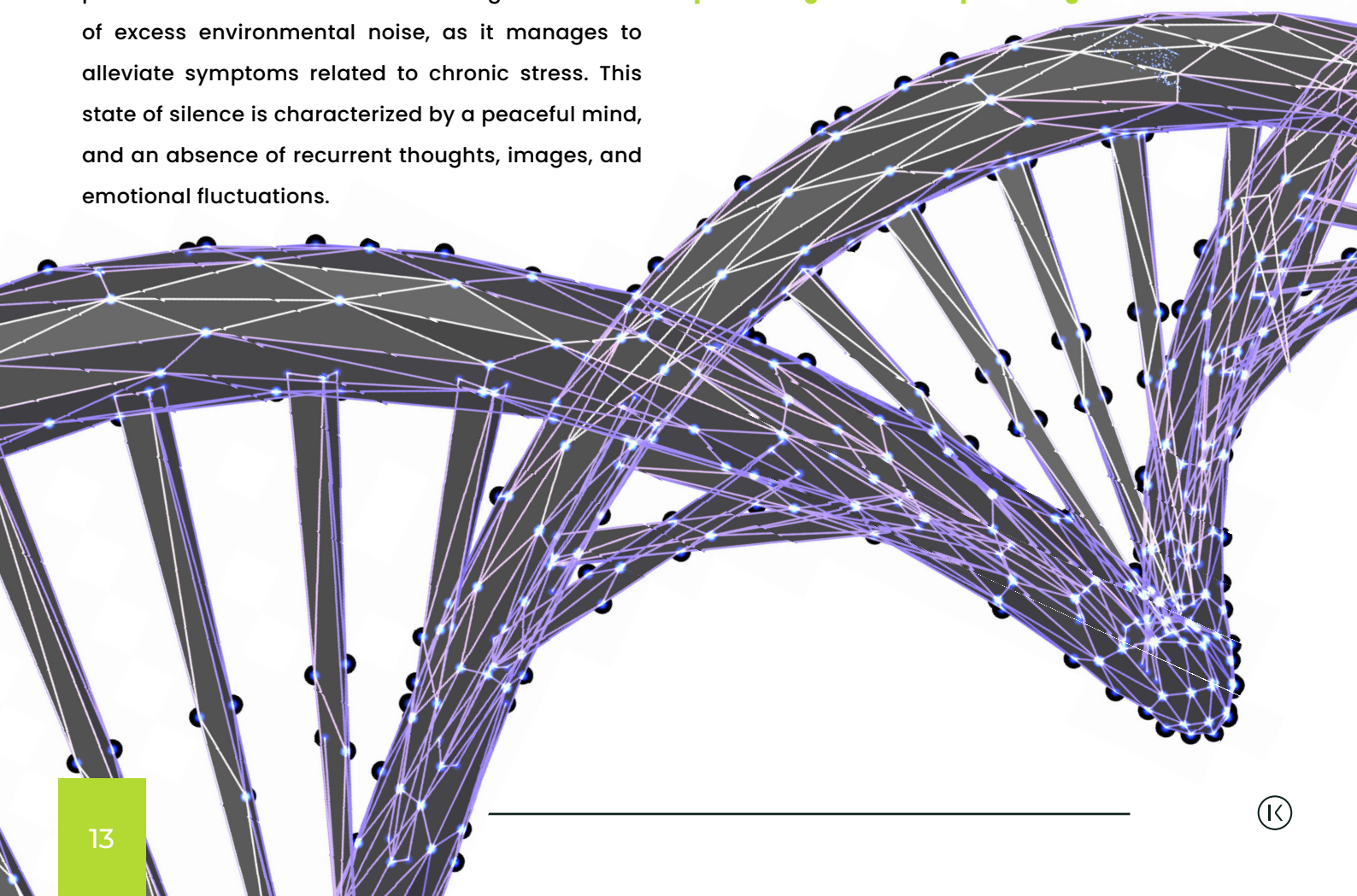
This study shows that the practicing meditation, yoga, and Tai Chi can have positive effects on health by affecting gene expression and epigenetic regulation. Furthermore, these practices have also been associated

with reductions in levels of pro-inflammatory markers and a slower decline in DNA methylation implicated in aging. These findings indicate that mind-body therapies hold promise in preventive, diagnostic, and therapeutic medicine. A mind-body practice can be used to prevent chronic diseases associated with aging, such as cardiovascular and autoimmune disorders. Meditation, yoga, and Tai Chi can be used as complementary therapies to improve overall health.

To understand how mind and body activities work to generate environmental stimuli to the point of reaching epigenetic expression, a group of Italian researchers published an article in the journal Frontiers in Psychology. The researchers found mind-body practices can be considered emotional regulatory activities and lead to a state of greater inner silence, allowing for an expansion of a state of self-awareness. They consider inner silence a powerful tool to counteract the negative effects of excess environmental noise, as it manages to alleviate symptoms related to chronic stress. This state of silence is characterized by a peaceful mind, and an absence of recurrent thoughts, images, and emotional fluctuations.

Yoga is one of the practices considered in the research as it leads to a meditative state even when moving, and its function is to promote a state of mental silence and generate a positive impact on emotional regulation and health. The Italian researchers found that yoga reduces inflammation and accelerated aging in addition to helping yoga practitioners better cope with stress. It was found that there is a lower expression of histone deacetylase genes and alteration in global levels of histone H4 acetylation in people participating in yoga and mindfulness activities. The study could uncover a potential therapeutic effect to combat depression.

The research concludes that behavior can mediate maladaptive responses to a stressful environment and cause changes in gene expression. The practice of mind and body activities, such as the Kaiut Yoga Method, contribute to creating positive external stimulation, triggering epigenetic events capable of preventing disease and promoting health.



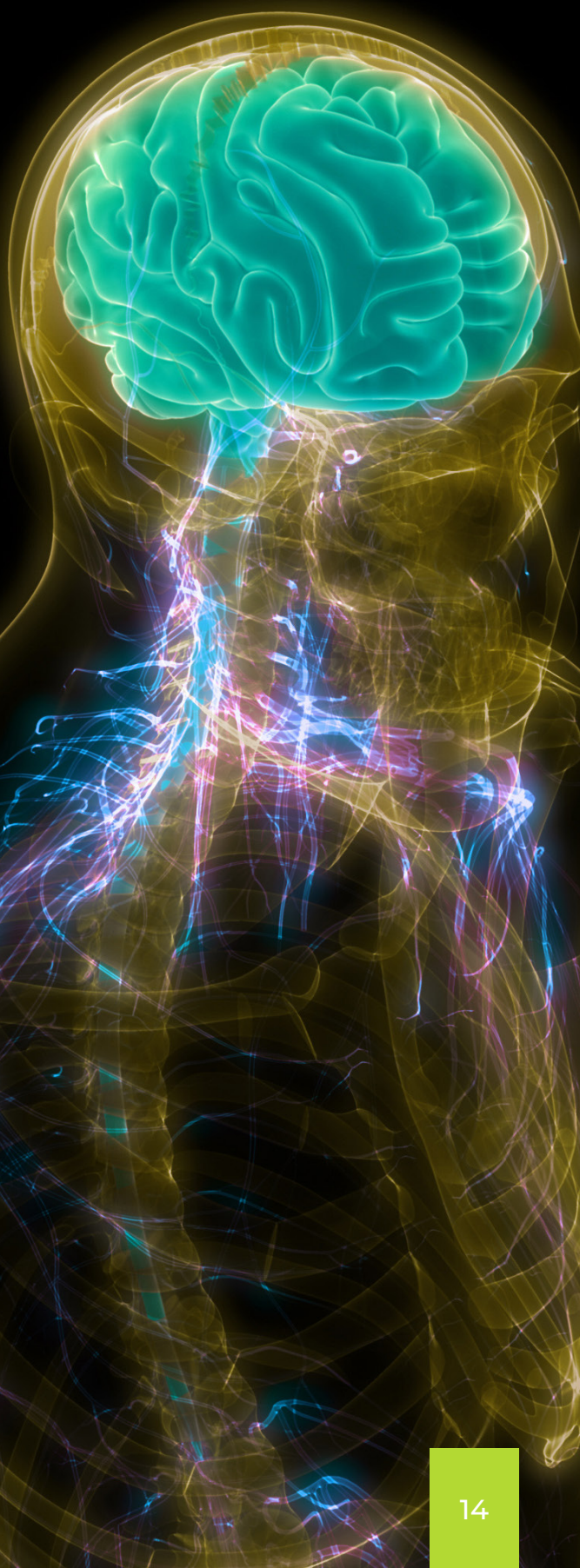
EPIGENETICS AND REGULATION OF THE NERVOUS SYSTEM

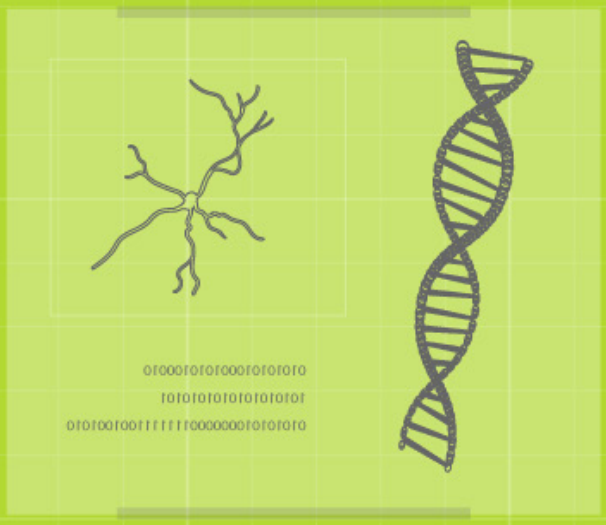
From studies in epigenetics, it is possible to observe that the environment has a great influence on human behavior and healthy interventions can generate lasting effects. Numerous studies in scientific publications prove that epigenetic modifications regulate the expression of our genes. But what about their effect on the nervous system?

Epigenetic changes in gene expression may also play an important role in neural plasticity, which is the brain's ability to change its structure and function in response to experiences or environmental cues. Neural plasticity is essential for learning and memory. Epigenetic regulation may help explain how these processes occur. For example, exposure to an enriched environment with many stimuli can lead to epigenetic changes in genes that regulate neural plasticity, leading to improvements in cognitive aspects such as learning and memory.

It is already known that epigenetic gene expression acts on neural processes and can cause many disorders. In an article published in The Journal of Neuroscience, researchers stated that, as far as brain processes are concerned, there are epigenetic changes that appear to play a role in a diverse set of functions, including learning and memory processes, drug addiction, neurodegeneration, and circadian rhythms—the 24-hour period of the human biological cycle influenced by sunlight, temperature, winds, day and night.

According to the scientists, epigenetic mechanisms have implications for specific human disorders, including Fragile X syndrome, Rett syndrome, Huntington's disease, schizophrenia, and bipolar disorder. To reach this conclusion they delved into studies on Rett syndrome, one of the most studied disorders related to neurodevelopment linked to the X chromosome and characterized by severe motor and cognitive impairment. What is known from these studies is that the gene responsible for this disease modulates the level of expression of other genes.

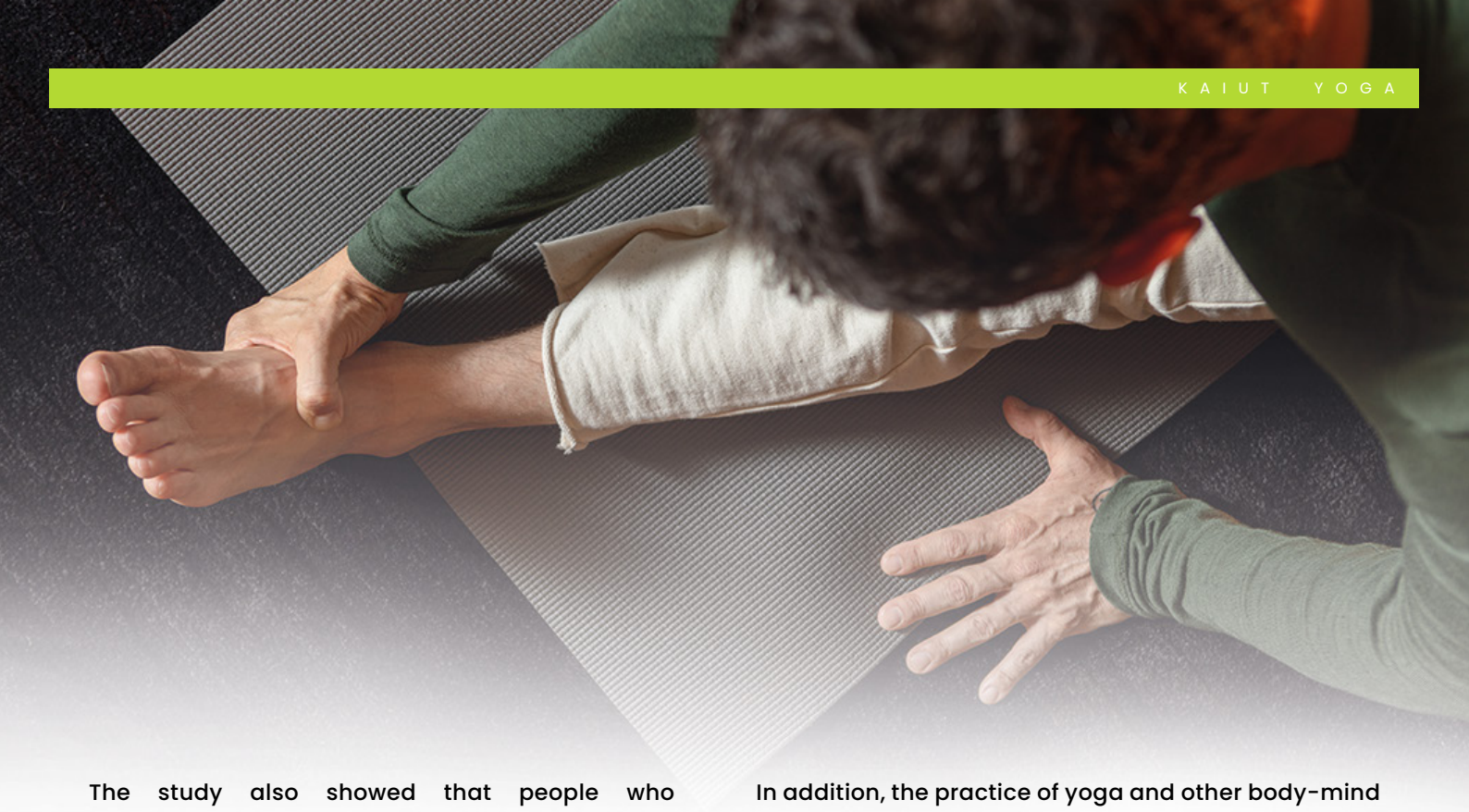




The central nervous system and brain evolved to make us what we are today, but we are also strongly influenced and affected by epigenetic factors. From gestation through childhood, adulthood, and old age, epigenetic factors alter our neural activity. Epigenetic mechanisms impact the adaptive characteristics of the central nervous system, from physiology to pathology. Due to changes in the epigenome, neurons reorganize themselves in response to intrinsic or extrinsic stimuli, and develop or maintain specific activities. Stress, changes in diet, and environment can influence brain neuroplasticity and affect central nervous system activity. Interventions that aim to enrich the individual's physical and social environment can be an important strategy to improve resilience and increase protection against neurodegenerative diseases.

Another study published in Frontiers in Immunology conducted by researchers from the UK and the Netherlands reviewed the work of researcher Ivana Buric, PhD in Philosophy, Psychology and Behavioral Science. They verified that as a result of body-mind activities there is a pattern of molecular alterations called "expression" of genes, that is, their activation or deactivation, with benefits for both physical and mental health. Their review points out that when our sympathetic nervous system is faced with a stressful situation, it floods the body with hormones and substances such as adrenaline, which causes changes such as increased heart rate and strength of contractions, dilation of pupils and bronchi, and increased blood flow to muscles and brain. These are the so-called "fight-or-flight" reactions fundamental to our survival, especially in ancient times when humans were hunter-gatherers. If this fight-or-flight reaction is prolonged without any escape valve, it can have harmful effects on the body in a process known as "conserved transcriptional response to adversity." One example of this is the increase in the production of a molecule called nuclear factor kappa B. This substance activates genes that order the production of proteins called cytokines, which cause inflammation at the cellular level—very useful in fight-or-flight scenarios but which can be harmful in cases of urban stress, such as being cut off in traffic, pressures at work, or a financial loss, all of which we cannot fight or flee.

If the flood of these substances persist in the body, the risk of cancers, premature aging and psychiatric disorders is increased.



The study also showed that people who consistently engage in practices such as yoga enjoy an opposite effect, that is, a decrease in the production of NF-kB and, consequently, of cytokines, which leads to a reversal of the pro-inflammatory state of the gene expression pattern and a reduction in the risk of developing diseases associated with inflammatory processes.

In addition, the practice of yoga and other body-mind activities leave a molecular "signature" in our cells that reverses the effects that stress and anxiety would have left in the body, changing the way our genes are expressed and making the brain guide our genetic processes in a way that can improve well-being.

CONCLUSION

Balance: Epigenetics and the Kaiut Yoga Method for health

The world of epigenetics and its connection to yoga and nervous system regulation is both complex and fascinating. Our life experiences and environment can shape the expression of our genes and influence our health and well-being. We have the power to modify epigenetic expression patterns through our daily choices and practices. With a consistent practice of yoga we can regulate our nervous system, reduce stress and anxiety, and promote physical, mental and emotional health and balance. To put this strategy into practice, it is up to you to take a holistic approach to your health and well-being, recognizing that your mind, body, and environment are all interconnected.

You can nourish your body with healthy food and practice the Kaiut Yoga Method to increase your resilience and stamina. You can also learn to regulate your breathing and cultivate mindfulness to calm your mind and reduce stress. Adopting a natural approach to your health is critical to achieving balance in body

and mind. This involves taking care of your health holistically by using natural and integrative methods to prevent and treat illness. Yoga is a natural practice that has been used for thousands of years to improve physical, mental, and emotional health. In addition, eating a healthy and balanced diet provides essential nutrients for the body, strengthening the immune system. By integrating practices such as yoga and eating clean food, you will be able to enter into a sustainable cycle of health that will last throughout your life. You will reach a state of balance and well-being that will allow you to live a full and inspiring life. Natural health is a journey that requires commitment, but the results are rewarding.

Practicing yoga is not about external changes. It is about great internal changes that can, with consistency, affect gene expression. The environment to which we are most exposed throughout our entire lives, even when we are removed from nature, is our internal environment. Even in an environment free from the toxicity of modern life and pollution, we are always exposed to the possible toxicity of our thoughts and emotions and their impact on our nervous regulation.

I invite you to explore the power of the Kaiut Yoga Method with an awareness of the effects of epigenetics in your life. No matter your age or current condition, you can start making small changes to your daily routine that will have a big impact on your long-term health and well-being. So, take a deep breath, lay out your yoga mat, and begin to explore the wonderful connection between your mind, your body, and your environment. You have the power to change the expression of your genes and promote a healthy and inspiring life.

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