



Epigenetics & Lifestyle Research

Description

The Foundational Facts



In the lesson on [DNA, Genes & Epigenetics](#), we learned that throughout the latter half of the 20th century, mainstream science and medicine were alarmingly wrong about the functioning of genes, believing they were a “blueprint” for a person’s biology. This was proven incorrect by the Human Genome Project completed in 2003. Genes are better understood as potentialities. They express differently based on their environment.

We learned that diseases may run in the family, but not because of genes. And we learned that epigenetics is the science of how environment impacts genes.

Heaps of [research](#) has proven that lifestyle choices directly affect health and wellness. And in the past decade, it’s become utterly clear what is happening at the deepest physical levels to explain the excellent results of lifestyle on people’s health.

Researchers have confirmed that lifestyle has a fundamental and powerful impact on our physical wellness because it impacts us at a cellular level.

These factors include diet, intermittent fasting and nutrition; movement and sleep; how we manage stress and emotions; the toxins we’re exposed to and the time we spend in nature; what we think,

the words we speak, and the sound frequencies we hear.

These things alter how our cells behave, including cellular regeneration, programming particular genes to express and others to suppress, and activation of the “other 98%” of our DNA. That all feels to us like wellness or illness.

This knowledge comes to us from the type of study called epigenetics, a term that literally means “above” or “beyond the control” of the gene. Epigenetics is the science of how environment (especially nutrition, exercise, stress relief and so on) impacts genes.

Additionally, more research is now available on the “other 98%” of our DNA (beyond the genes that have been such a focus for western science) “what those same scientists have called “junk DNA,” “biology’s dark matter” or “non-coding DNA.”

These research findings provide the [materialist mind](#) an explanation for the heaps of [research](#) which has already confirmed that these practices directly affect health and wellness.

Very Important

The following comments by Harvard Medical School editors are referring to research conducted by the Benson-Henry Institute for Mind Body Medicine at Massachusetts General Hospital in 2013.

Eliciting the Relaxation Response Caused Genes to Turn On & Off That Have Extensive Positive Impacts on Health & Well-Being

Skeptics have long believed that meditation and other stress reduction techniques are nice but ineffectual practices that do little for you. Nothing could be further from the truth “and now we have the science to prove it”! Exciting new research suggests that the simple act of eliciting the relaxation response temporarily changes the activity of certain genes; it switches off genes associated with chronic inflammatory responses. Many experts believe these inflammatory responses stress the body, possibly contributing to a host of chronic ailments, such as heart disease, inflammatory bowel disease, and diabetes. At the same time, it switches on genes linked with a variety of functions: the use of energy in the body, the release of insulin (which helps regulate blood sugar), the maintenance of telomeres (protective end-caps on our chromosomes that erode with age until a cell dies), and the functions of tiny cellular powerhouses called mitochondria! This information was prepared by the editors of the Harvard Health Publications division of Harvard Medical School. It is excerpted from our [Special Health Report: Stress Management](#). “Harvard Medical School [link](#)

Some of the powerful findings and implications include:

1. Chronic [stress](#) is known to both cause and exacerbate disease, and can lead to other problems such as [anxiety](#) or [depression](#). A balanced [nervous system](#) is key to positively managing stress.
2. Eliciting [the relaxation response](#) balances the nervous system and brings a cascade of positive health effects.
3. The Benson-Henry research shows that the relaxation response is also impacting the body at an even deeper, cellular level, determining which genes are turned on and off, and thereby setting off a series of powerfully positive bodily activity. The cellular activity includes the key cellular

activities that researchers have become aware of that relate to health: the maintenance of telomeres and healthy functioning mitochondria.

4. [Chronic inflammation](#) overwhelms the [immune system](#) and causes additional symptoms. Chronic inflammation is on a short list of [underlying causes](#) of imbalance and disease. The Benson-Henry research shows that the relaxation response switches off genes associated with chronic inflammatory responses.

Research: Epigenetics in Action



For terminology, please see the previous two lessons:

- [Cells & Cellular Biology](#)
- [DNA, Genes & Epigenetics](#)

Classic Epigenetics Results



In the video above, the beginning doesn't provide much of value, but at 25 minutes, the researcher shares results from an experiment on stem cells and the experience of aging.

Researchers exchanged the tissue environment for young and old stem cells, placing young stem cells in an "old environment" and old stem cells in a "young environment."

- Just as epigenetics teaches, the environment directly impacted the stem cells.
- Young stem cells put in an "old environment" degraded and they stopped regenerating.
- Old stem cells put in a "young environment" rejuvenated previously non-regenerative stem cells, and the mice that had previously stopped growing hair began again to grow hair.

Research Summaries

Randomized controlled trial: Diet & lifestyle changed DNA, reducing its "age" (2021) [link](#)

- Randomized controlled clinical trial: 43 healthy adult males, ages of 50-72
- Treatment Group: 8 weeks of guidance on diet, sleep, exercise and relaxation, plus supplemental probiotics and phytonutrients
- Control Group: no intervention
- Measurement: genome-wide DNA methylation analysis on saliva samples, DNAmAge was calculated

- The diet and lifestyle treatment was associated with a 3.23 years decrease in DNAmAge compared with controls

Benson-Henry controlled trial: reducing stress changed genetic expression (2013) [link](#) and [link](#) and [link](#)

- Inducing relaxation changed genetic activity.
- Relaxation “switched off” genes associated with [chronic inflammation \(a fundamental factor in disease\)](#).
- It “switched on” genes linked with energy, regulating blood sugar, the maintenance of telomeres, and functions of mitochondria.
- Research conducted by the Benson-Henry Institute for Mind Body Medicine at Massachusetts General Hospital
- “Skeptics have long believed that meditation and other stress reduction techniques are nice but ineffectual practices that do little for you. Nothing could be further from the truth” and now we have the science to prove it. [\(Harvard Medical School\)](#)

Exercise changed DNA “genome-wide” (2013) [link](#)

- Study followed 23 healthy men, with a previous low level of physical activity, before and after a six months exercise intervention.
- Exercise changed DNA “genome-wide.”

In utero exposure to (common) toxic chemicals changed genetic expression (2012) [link](#)

- In utero exposure to toxic chemicals such as BPA (common in many food containers) altered genetic expression.

The epigenetic effects on DNA of environmental chemicals such as BPA and phthalates have expanded our understanding of the etiology of human complex diseases such as cancers and diabetes. Multiple lines of evidence from in vitro and in vivo models have established that epigenetic modifications caused by in utero exposure to environmental toxicants can induce alterations in gene expression that may persist throughout life. Sher Singh et al, PubMed [link](#)

Lifestyle improvements changed DNA, increasing telomerase activity (2008) [link](#)

- “Comprehensive lifestyle changes significantly increase telomerase activity and consequently telomere maintenance capacity in human immune-system cells.”
- Telomeres are a part of chromosomes that serve a stabilizing role [\(source\)](#), protecting the ends “from being frayed or tangled” [\(source\)](#); telomere damage (including when shortened) indicates disease progression [\(source\)](#)

Focused intention changed DNA: intention changed the growth of tumor cells by modulating the rate of DNA synthesis; results were dependent on intention (1996) [link](#)

- Research by Glen Rein, PhD, Quantum Biology Research Labs, Northport, NY; published in: Proceeds of the International Forum on New Science, Denver CO

- Mind-body medicine has well recognized the ability of mental images, generated by the mind and directed to specific parts of the body, to produce profound physiological changes, e.g. impede tumor growth (Ader, 1981). Rauscher and Rubik examined the relationship between biological responses and different healing state of consciousness (Rauscher and Rubik, 1983). The growth of tumor cells in culture was [measured]. The protocol involved measuring DNA synthesis by quantifying its ability to incorporate radioactive thymidine using standard biochemical techniques. The healer, Leonard Laskow attained different states of consciousness and intentionally focused on three petri. Aliquots of the same population of cells were simultaneously presented to a non-healer in an adjacent room. Both sets of petri dishes (n=6) were brought back to the tissue culture hood where they were labeled blindly. The author then treated all the petri dishes with radioactive thymidine and processed them after 24 hours of additional growth. Five different mental intentions were studied for their biological activity. Laskow describes an overall state of transpersonal unconditional love that was maintained throughout all the experiments, which allowed him to be in resonance with the tumor cells. The technique used for attaining these healing states of consciousness is a form of meditation which allows intentional focusing and cohering of energy.
- The results from this study indicate that the different intentions could be distinguished in terms of their biological responses. Three intentions inhibited the growth of the tumor cells, the most effective (39% inhibition) being to return the cells to their natural order. Thus some intentions were more biologically active than others, although the order of efficacy may be dependent on the specific target. The results indicated that different biological effects could be observed by just changing the intent or the imagery associated with the healing process but nonfocused thought had no effect.
- These results indicate that focused human intention can influence the growth of tumor cells by modulating the rate of DNA synthesis. The effects observed here on DNA synthesis were shown to be dependent on the intention of the healer with some intentions producing larger effects and others producing effects in the opposite direction. It was also demonstrated that imagery as well as intention was a critical component of the states of consciousness which produced biological effects. Underlying all the states of consciousness tested was a genuine heart-felt feeling of unconditional love which Laskow felt was necessary in order to produce the observed effects on DNA synthesis.

States of calm & peace (now physiologically measurable) changed structure of water & DNA (1994) [link](#)

- Researchers were able to define particular states of being by measuring their unique electrophysiological characteristics. These states were a result of quieting the mind, shifting awareness to the heart and focusing on positive emotions.
- The measurable characteristics included heart rate variability, pulse, and respiration.
- ECG monitoring was used to demonstrate when the individuals were in the entrained state. At this point a sample of distilled water in a sealed test tube was presented to the subjects. Five individuals were used in this study. A total of 10 trials (different days) were conducted. While holding a beaker containing the samples, subjects were asked to focus on the samples and intentionally alter their molecular structure for five minutes. In an adjacent room, control samples were aliquoted from the original stock solution into identical test tubes.
- These results suggest that the water structured in the above experiments facilitates the spontaneous tendency of DNA to rewind (decrease absorbance). These studies are an extension

of previous research indicating that water structured with bioenergy alters the growth of plants (8) and mammalian cells in culture (9).â••

More Research

- [Leonard Laskow MD, Research Papers](#)

Reclaiming Power Over Health Outcomes



Western Medicine Has Promoted an Incorrect Belief in Predetermination, or Fate

Less than 1% of diseases are caused by a genetic defect. The other 99% have manifested due to the environment. The environment includes personal lifestyle choices that heal the gut, manage stress and so on.

Many people believed it when their doctors told them they were unwell because of their genes (rather than because of environmental factors that triggered the condition). Western medicine's promotion of genetic determinism distracted generations of people from exercising their power to be healthy.

Take Cystic Fibrosis, For Example

A number of factors contribute to how a gene will be expressed, or if it will. Among these factors, many are within our control. Our environment, what we eat, breathe, and come in contact with will all determine our eventual health and disease. For example, cystic fibrosis [previously described as a genetic disease] is caused by the defective expression of a particular gene. The defective expression, scientists have learned, can be triggered by nutritional deficiencies. Further, this particular gene has been shown in the lab to experience partial or even full correction when exposed to the beneficial compounds known as phytochemicals in cayenne, soybean, and turmeric! Accepting responsibility for disease existence can lead to prevention. What I mean is that when you recognize your own active role in the health of your body, you embrace the power to change it. We can no longer blame our genes for what ails us. Armed with this knowledge, what will you do about it? Elizabeth Renter, Natural Society, *Blame Genetics? Flawed Genes? Cause Less than 1% of All Diseases* [link](#)

The Microbiome & Health

Food is a source of gene-regulatory information before anything else. Sayer Ji, GreenMedInfo, Leonardo da Vinci & The New Biology [link](#)

The human genome project was a key turning point in research. It overturned the mainstream medical belief of the time that genes cause disease. This led to a change in direction for many researchers, which led to vast new understandings of how our bodies maintain health, get sick and recover particularly in regards to what has come to be called the microbiome.

In just the last few years, research into the human microbiome has revolutionized medicine and our understanding of health. Kelly Brogan MD, 2016 [link](#)

Health is now known to be expressed through a healthy microbiome, [the heart of the immune system](#).

From the Standpoint of DNA, We are More Microbial Than Human

Biologists now believe that much of what makes us human depends on microbial activity. The two million unique bacterial genes found in each human microbiome can make the 23,000 genes in our cells seem paltry, almost negligible, by comparison. It has enormous implications for the sense of self. Tom Insel, the director of the National Institute of Mental Health, told me. *We are, at least from the standpoint of DNA, more microbial than human. That's a phenomenal insight and one that we have to take seriously when we think about human development.* Peter Andrey Smith, The New York Times Magazine, *Can the Bacteria in Your Gut Explain Your Mood?* [link](#) and [link](#)

Practical Resources

Where people get their information has a tremendous effect on their [belief systems](#), such as how much power they believe they have over their health. Such beliefs then determine their decisions about how they respond to illness and how they prioritize their lifestyle, for example.

With life-supporting information, we can inspire and support others in freeing their mind (and life) from the hopeless, helpless victimhood stemming from false paradigms. Some key information includes:

- - [Dr Eric Berg's YouTube channel](#) – Evidence-based teachings and practical tools in bite-sized chunks
 - [Epigenetics vs disproved biological determinism](#)
 - [The power of the microbiome](#)
 - [Reducing chronic inflammation through yoga and lifestyle](#)
 - [The terrain vs germ theory](#)
 - [Dr. Joe Dispenza](#) (and many others) have shown for decades (with supporting scientific evidence) the power of the mind and emotions to create dramatic changes in physical health
 - [Regenerate: Unlocking Your Body's Radical Resilience through the New Biology](#) – book by Sayer Ji

In this 14-min video, Greg Braden brings together research around human cells, DNA and genetic code to speak to the power we have to program the natural regeneration of living tissues.



Research Not Reflected in Mainstream Medicine



The 2003 genome research disproved the genetic determinism model. But even now, decades later, mainstream medicine has not recognized the profound role of lifestyle in how genes express, and communicating to people the power they have to improve their health and well-being.

Despite extensive research showing the significance of epigenetics, the microbiome, and practical and effective lifestyle strategies that build gut health through nutrition, these are not priorities in [mainstream medical education](#) or in [mainstream scientific research](#).

Despite having been [wrong on some really big things](#), the western medical system is seen by many as within the mainstream medical model are often treated [as authorities](#) who donâ??t require their work to be verified. However, thereâ??s extensive research and testimony showing the corruption of mainstream medical policy:



1. **[Medical Treatments Not Evidence-Based, Study Finds](#)** â?? This study found only one in ten treatments supported by reliable sufficient evidence. A BMJ study (summarized in readings [here](#)) reported that only 13% of common medical treatments were found to be beneficial and an additional 23% â??likely to be beneficial.â?•
2. **[Mainstream Medicine Ignores Evidence](#)** â?? Experienced heart surgeon points to ineffectiveness of statin drugs & how diet is the key cause and cure. Mainstream medicine continues with pharmaceuticals and surgery.
3. **[Medical Education Intertwined with Pharma Industry](#)** â?? Safe and effective health and wellness practices that get to the root cause of illness are not taught to western doctors. Instead, they are inundated with pharma bias.
4. **[Doctors Who Prescribe More Receive More](#)** â?? â??As tens of thousands of Americans die from prescription opioid overdoses each yearâ?; researchersâ?; found that opioid manufacturers are paying physicians huge sums of money.â?•
5. **[Doctors Not Trained in Pain Management or Addiction](#)** â?? And yet, as Harvard Medical School reports, doctors have even written opioid prescriptions after an overdose.
6. **[FDA Assumed Control Over What Nature Provides](#)** â?? The FDA assumed totalitarian control over the definition of medicine, requiring even freely available natural products to go through their expensive approval process and prohibiting caregivers from legally being able to communicate the effectiveness of natural, low-cost remedies such as herbs, foods and spices.
7. **[FDA Corrupted and â??Fundamentally Broken,â?• Say FDA Scientist Whistleblowers](#)** â?? â??The FDA is riddled with politics, conflicts of interest and outright corruption, and is, as the letter says, â??fundamentally broken.â?? [The letter was] written by a group of scientists on FDA letterhead â?? but with their names blacked out for fear of retaliation.â?•

More on this [here](#).

The Other 98% of DNA



Mainstream Western Research

Mainstream Western science has published research related to only 1 to 2% of DNA.

Western academics claim that the role of the remaining 98 to 99% of DNA â?? what they call â??junk DNA,â?• â??biologyâ??s dark matterâ?• or â??non-coding DNAâ?• â?? is a mystery. ([UCSF](#)) Some have presumed that it has no function at all.

And yet, research into the other 98% of DNA by American scientist Dr. Rein and Russian scientist Pjotr Gajajev provide evidence that DNA is programmed by words and vibrations, profoundly impacting our health and well-being.

Western Academics Claim to Not Know What 98% of the DNA Does

The mysterious majority â?? as much as 98 percent â?? of our DNA do not code for proteins. â?? Nina Bai & Dana Smith, University of California San Francisco, The Mysterious 98%: Scientists Look to Shine Light on Our Dark Genome [link](#)

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After the Human Genome Project, scientists found that there were around 20,000 genes within the genomeâ?|. Remarkably, these genes comprise only about 1-2% of the 3 billion base pairs of DNA. This means that anywhere from 98-99% of our entire genome must be doing something other than coding for proteins â?? scientists call this non-coding DNA. Imagine being given multiple volumes of encyclopedias that contained a coherent sentence in English every 100 pages, where the rest of the space contained a smattering of uninterpretable random letters and characters. You would probably start to wonder why all those random letters and characters were there in the first place, which is the exact problem that has plagued scientists for decades. â?? Jonathan Henninger, Harvard University, The 99 Percentâ?| of the Human Genome [link](#)

In the following 3-minute video, David Wilcock provides a concise and powerful summary of the profound research into DNA conducted by American scientist Dr. Rein and Russian scientist Pjotr Gajajev.



Russian Scientists Prove that DNA is Changed by Words, Thoughts & Frequencies

“An innovative Russian team refused to accept that such a huge majority of DNA could hold no research value. This groundbreaking research shows that DNA stores data and is changed with the spoken word and other frequencies. They were even able to reprogram cells to another genome they transformed frog embryos into salamander embryos without lifting a single scalpel or making one incision.”

The following are reflections on the research by Russian biophysicist and molecular biologist Pjotr Garjajev and colleagues, and the book [**Vernetzte Intelligenz \(Networked Intelligence\)**](#) by Grazna Fosar and Franz Bludorf (only available in German) that covers that research.

DNA Stores Data & Is Changed by Spoken Words of Particular Frequencies

An innovative Russian team, led by biophysicist and molecular biologist Pjotr Garjajev, refused to accept that such a huge majority of DNA could hold no research value. To probe the mysteries of this uncharted terrain, they paired linguists with geneticists in an unconventional study to test impact of

vibration and language on human DNA. What they found was [that] our DNA stores data like a computer's memory system. Our genetic code uses grammar rules and syntax in a way that closely mirrors human language! It appears that all human languages are simply verbalizations of our DNA. Most astounding of all, the team discovered that living human DNA can be changed and rearranged with spoken words and phrases. The key to changing DNA with words and phrases is in using the right frequency! The Russians were able to influence cellular metabolism and even remedy genetic defects. The team achieved incredible results using vibration and language. For instance, they successfully transmitted information patterns from one set of DNA to another. Eventually, they were even able to reprogram cells to another genome – they transformed frog embryos into salamander embryos without lifting a single scalpel or making one incision. Underground Health Reporter, DNA Science and What Russian Researchers Have Surprisingly Discovered [link](#)

Human DNA is a Biological Internet and Superior to the Artificial One

The human DNA is a biological Internet and superior in many aspects to the artificial one. The latest Russian scientific research directly or indirectly explains phenomena such as clairvoyance, intuition, spontaneous and remote acts of healing, self healing, affirmation techniques, unusual light-auras around people (namely spiritual masters), mind's influence on weather-patterns and much more. In addition, there is evidence for a whole new type of medicine in which DNA can be influenced and reprogrammed by words and frequencies WITHOUT cutting out and replacing single genes. Only 3% of our DNA is being used for building proteins. It is this subset of DNA that is of interest to western researchers and is being examined and categorized. The other 97% are considered "junk DNA". The Russian researchers, however, convinced that nature was not dumb, joined linguists and geneticists in a venture to explore those 97% of "junk DNA". Their results, findings and conclusions are simply revolutionary! Garjajev's research group succeeded in proving that chromosomes damaged by x-rays, for example, can be repaired. They even successfully transformed, for example, frog embryos to salamander embryos simply by transmitting the DNA information patterns! This way the entire information was transmitted without any of the side effects or disharmonies encountered when cutting out and re-introducing single genes from the DNA. Atam.org, Russian DNA Discoveries [excerpt from Grazyna Fosar and Branz Bludorf's book noted above] [link](#)

DNA is Changed by Words, Thoughts & Frequencies; DNA Damaged by Dangerous Frequencies Can be Repaired

The Russian biophysicist and molecular biologist Pjotr Garjajev and his colleagues explored the vibrational behavior of the DNA. They refer to human DNA as a biological internet, being far superior to the artificial one we've created! According to them, our DNA is not only responsible for our physical makeup but also stores data and governs our communication. The Russian linguists found that our genetic code follows the same rules as all human languages! They found that the alkalines in our DNA follow the rules of grammar, just like human languages. So, human language is simply a reflection of our DNA! Garjajev's research group proved that chromosomes damaged by dangerous frequencies such as x-rays can be repaired. They even successfully transformed frog embryos to salamander embryos only by [transmitting the DNA information patterns](#) using wave genetics! Unlike the western way of cutting out single genes from the DNA, Russians found a way to transfer all the information without any of the disharmonies. All of this was possible merely using frequency and language, which shows just how powerful our words and the frequencies we expose ourselves to are.

â?? Kristen and Christopher Butler, *Power of Positivity*, Researchers Reveal How Our Words Can Physically Change Our DNA [link](#)

Science Gives Underlying Functioning Behind Indigenous Teachings on Mantras & Sound

Russian biophysicist and molecular biologist Pjotr Garjajev and his fellow scientistsâ? [provided] evidence for a whole new type of medicine in which DNA can be influenced and reprogrammed by words and frequencies without cutting out and replacing single genesâ? Our DNA is not only responsible for building our body but also serves as data storage and communicationâ? Researchers also explored the vibrational behavior of DNAâ? They managed to modulate certain frequency patterns [to] influence the DNA frequency and thus the genetic information itself. The basic structure of DNA-alkaline pairs and language is of the same structure. So how is this done? With the use of words and sentences, since words and sentences give out a vibrational frequency, like [mantras](#) or intonation of languageâ? It is entirely normal and natural for our DNA to react to languageâ? Garjajev and his group succeeded in proving that with this method chromosomes damaged by x-rays, can be repaired and they even captured information patterns of a particular DNA and transmitted it to another, thus reprogramming cells to another genomeâ? It is known that Shamans, Esoteric and spiritual teachers have known for a long time the potential of our body and mind, they have known that our body is programmable by language, words and thought. Now thanks to Garjajev and his team, this â??theoryâ? • has been scientifically proven and testedâ? This article is based on the book [Vernetzte Intelligenz \(Networked Intelligence\)](#). â?? Ancient Code, Researchers Claim Our DNA Can Be Reprogrammed by Words and Certain Frequencies [link](#)

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