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 ORIGINAL PAPERS

Epigenetic Alterations: Epigenetics in Health and Disease. Impact of Deniplant Tea

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Abstract*: Background Conditions such as cancers, metabolic disorders, psoriasis, and degenerative disorders have been found to be related to epigenetic alterations. Diet is one of the more easily studied, and therefore better understood, environmental factors in epigenetic change. Thus, an enhanced understanding of how epigenetic mechanisms modulate gene expression and how nutrition can optimize healthy epigenetic patterns can positively influence human health.*
The aim of the present project is to investigate whether a dietary intervention could ameliorate the clinical manifestations and modulate the epigenetic error in psoriatic disease.
Materials and methods Nutrients could interact with the epigenome to "protect or boost cognitive processes across the lifespan". As we better understand the connections between diet and the epigenome, the opportunity arises for clinical applications in psoriasis.
Results Recent studies have shown positive results for epigenetic-based therapies for psoriasis, which may be a field of increased focus in the coming years in search of better treatments. Deniplant tea can restore epigenetic alterations, resulting in amelioration or prevention of psoriasis and other systemic disease phenotypes, possibly also as a genetic modulator (CARD14 gene). The authors made EGO-Deniplant an online program for food control, modulating symptoms in psoriasis.
Conclusion Epigenetic alterations have given insight into the understanding of the pathophysiology of psoriatic disease.

Key words: nutrients, gut microbiota, immunomodulation

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Epigenetics is the study of how an individual's behavior and environment can cause changes that affect the way the body's genes work. Unlike genetic changes, epigenetic changes are reversible and do not change the DNA sequence, but they can change the way the body reads a DNA sequence. Epigenetic changes affect gene expression to turn genes on and off (1).
Because the individual's environment and behavior, such as diet and exercise, can lead to epigenetic changes, it is easy to highlight the link between genes,

individual behavior, and the environment. An individual's epigenetics changes throughout life. Epigenetics at birth is not the same as epigenetics during childhood or adulthood.

Not all epigenetic changes are permanent. Some epigenetic modifications can be added or removed in response to behavioral or environmental changes. Certain mutations favor the appearance of cancer. Some epigenetic changes can cause cancer. In biology, epigenetics is the study of stable phenotypic changes (known as marks) that do not involve changes in the DNA sequence. Epigenetics most often involves changes that affect the regulation of gene expression, but the term can also be used to describe any heritable phenotypic change. Epigenetic mechanisms have been proposed as "a potential molecular mechanism for the effects of hormones on the organization of developing brain circuits" (2).

Nutrients could interact with the epigenome to "protect or boost cognitive processes throughout life." Epigenetics plays a major role in brain aging and age-related cognitive decline.

A review suggests the neurobiological effects of exercise through epigenetics "essential for building an 'epigenetic memory' that influences long-term brain function and behavior." Epigenetics also plays a major role in the evolution of the individual's brain.

Epigenetic modifications have provided insight into understanding the pathophysiology of various disease states. Epigenetics is the study of how the environment and other factors can change the way genes are expressed. Epigenetic changes do not change the sequence of a person's genetic code. Chemical changes that influence gene activity are collectively called the epigenome, but the epigenome is also susceptible to being influenced by exposure to toxins and other environmental factors (3).

Genetics is the study of genes - the units of a person's genetic code, made of DNA - and the traits they influence. Epigenetics focuses on the physical changes that affect how genes are "expressed"-whether, for example, a particular gene is active or not. Because the epigenome modulates the effects of an individual's genome - because it can be influenced by external factors. Some research suggests that severe stress early in life can lead to epigenetic changes that contribute to a lasting increase in the physiological stress response. Such an effect could reflect an adaptation mechanism to a threatening environment based on early experience. When the source of stress, such as early maltreatment, a sustained stress response could be harmful in the long term.

Epigenetics refers to environmental triggers that influence gene expression. Recent research has suggested that aging is more likely to be an orderly self-destruction program that is dictated by the individual's genes. The accumulation of oxidative stress and the cumulative number of DNA mutations could explain the deterioration of the body over time. We now understand that aging is likely due to

the failure of DNA repair systems. Regular vigorous exercise and caloric restriction are the safest, evidence-based methods to increase healthy life span, also known as "health span." Caloric restriction can be achieved through time-restricted eating, intermittent fasting, or long-term reduction of daily caloric intake.

Epigenetic changes are important drivers of aging. Epigenetic changes that occur throughout life are often reversible.

Finally, the term "inflammation" describes chronic low-level inflammation throughout the body with age that develops in the absence of infection. This is due to failures of the innate immune system that fights disease.

Epigenetics (sometimes called epigenomics) is a field of study focused on changes in DNA. Certain epigenetic changes can be passed from parent cell to daughter cell during cell division or from one generation to another (4).

The collection of all epigenetic modifications in a genome is called the epigenome. Epigenetics is the study of how cells control gene activity without changing the DNA sequence. "Epi-" is Greek for above, and "epigenetic" describes factors beyond the genetic code. Epigenetic modifications are changes in DNA that regulate whether genes are turned on or off. All the changes that regulate gene activity (expression) are known as the epigenome (5).

Environmental influences, such as a person's diet and exposure to pollutants, can affect the epigenome. Epigenetic changes can be maintained from cell to cell as cells divide and, in some cases, can be inherited across generations.

A common type of epigenetic modification is called DNA methylation. Another common epigenetic modification is histone modification. Errors in the epigenetic process, such as gene modification or the addition of a chemical group to a particular gene or histone, can lead to abnormal gene activity or inactivity. Altered gene activity, including that caused by epigenetic errors, is a common cause of genetic disorders. Conditions such as cancer, metabolic disorders and degenerative disorders have been found to be linked to epigenetic errors. Scientists continue to explore the relationship between the genome and the chemical compounds that modify it (6).

In particular, they study the effects that epigenetic changes and errors have on gene function, protein production and human health. Scientists now believe that epigenetics may play a role in the development of some cancers. For example, an epigenetic change that silences a tumor suppressor gene-such as a gene that keeps cell growth in check-could lead to uncontrolled cell growth. Another example could be an epigenetic change that "turns off" genes that help repair damaged DNA, leading to an increase in DNA changes, which in turn increases the risk of cancer. Epigenetics is the study of heritable and stable changes in gene expression that occur through changes in the chromosome rather than the DNA sequence. Epigenetics is a promising area of research because of the potential to regulate

gene expression without altering the DNA sequence, which can lead to ethical issues if performed in humans. Epigenetic mechanisms can induce disease. Epigenetic control mechanisms have been grouped into post-translational histone modifications and chromatin remodeling. Epigenetic mechanisms, such as DNA methylation and histone modifications, play key roles in development as well as in the maintenance of genomic integrity and gene expression. Epigenetics refers to cellular processes that regulate chromatin structure and subsequent gene expression in the absence of DNA sequence changes. Epigenetics is the study of non-genotoxic, reversible, heritable mechanisms that influence gene expression without changing the DNA sequence (7-14).

Purpose

The aim of the present project is to investigate whether a dietary intervention could ameliorate clinical manifestations and modulate epigenetic error in psoriatic disease.

Materials and methods

Nutrients could interact with the epigenome to "protect or boost cognitive processes throughout life."

As we better understand the connections between diet and the epigenome, the opportunity for clinical applications for psoriasis is emerging.

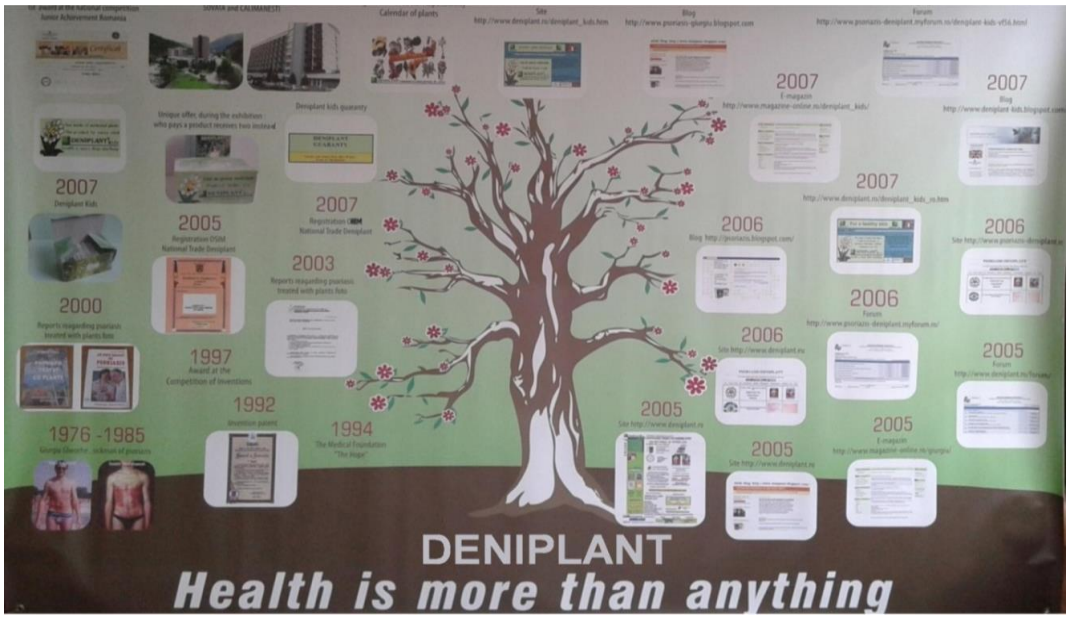
Results

Recent studies have shown positive results for epigenetic-based therapies for psoriasis, which may be an area of increased attention in the coming years in the search for more effective treatments.

Deniplant tea may restore epigenetic changes leading to amelioration or prevention of psoriasis and other systemic disease phenotypes, possibly also as a genetic modulator (CARD14 gene).

Deniplant tea prevents and treats the internal causes that trigger and maintain epigenetic alterations by naturally modulating the gut and skin microbiome.

Eliminating intestinal dysbiosis can prevent and eliminate complications caused by epigenetic alterations. Deniplant tea contains cultivated medicinal plants, berries and flora, buds of fruit trees. The authors made EGO-Deniplant® an online food control program, modulating symptoms in psoriasis. EGO-Deniplant® personal assistant for Nutrition, Health, Sports. You eat and heal if you know what, how much and how! EGO-Deniplant Personal assistant equipped with artificial intelligence. Alterego Digital, an extension of your own memory for storing and processing information about your health and microbiome.



The Biomedicine Center, a research center that combines Biology and Medicine
Deniplant® natural remedies
Natural remedies for psoriasis and other conditions
Natural remedies from food ingredients
You eat and heal if you know what, how much and how!
Deniplant remedies use exclusively natural ingredients.
Money back is offered if you are not satisfied with the results after 30 days.

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Conclusions

Epigenetics literally means "above" or "on top of" genetics. Epigenetics doesn't change the DNA sequence, it affects how cells "read" genes. Epigenetic alterations have provided insight into understanding the pathophysiology of psoriatic disease.

R E F E R E N C E S

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