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## **Norman SHEALY**

### **DNA Telomere Rejuvenation**

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Shealy Wellness

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<http://www.youtube.com/watch?v=9KbVb4x8bAk>

#### **Telomere Rejuvenation Key to Health and Longevity - C ...**

Video for Shealy rejuvenation ... Rejuvenation Key to Health and Longevity - C. Norman Shealy, MD, PhD

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<http://www.keelynet.com/indexmar311.htm#2>

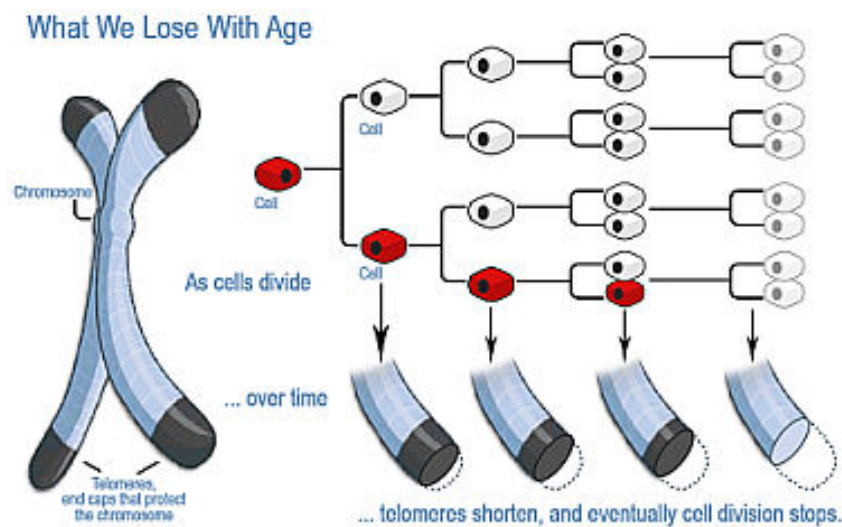
"Currently, Dr. Shealy is conducting a 5 year study on the effects of his RejuvaMatrix device on telomere length. Telomeres are the tail ends of our DNA and they shrink at the rate of approximately 1% per year throughout our lifetime.

The RejuvaMatrix consists of a mat connected to a Tesla coil. The study member lays on the mat with the Tesla coil turned on for 30 to 60 minutes daily. The Tesla coil outputs a high voltage, low current that generates a field large enough to cover a person laying on the mat.

The activating principle is the frequencies issued by the mat when the Tesla coil is connected and on.

These frequencies are in the 54 to 78 gigaHertz range, the range at which human DNA vibrates. Two white blood cell factors, granulocytes and lymphocytes, are measured to determine telomere length.

Based on preliminary test results for the use of the mat in the prescribed manner the RejuvaMatrix appears to not only stop the shortening of telomeres but lengthen them."



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## US2011077727 DNA Telomere Rejuvenation

A copper screen placed between two one inch foam pads and covered with crushed sapphire crystal is connected to an activated Tesla coil. This leads to increased telomere length in normal white blood cells and can be used to increase the reproductive capacity of cells and to delay the onset of cellular senescence.

### FIELD OF THE INVENTION

[0001] This invention relates to methods and devices for extending the telomeres and therefore the regenerative capacity of cells. The invention, therefore, relates to the fields of chemistry and medical therapeutic and diagnostic technology.

### BACKGROUND OF THE INVENTION

[0002] A copper tubing pyramid or a copper screen is placed between two one inch foam pads. The copper screen is covered with crushed quartz or sapphire crystal. Either device is

connected to a Tesla coil.

[0003] When the Tesla coil is activated, a field of 50 to 75 decibels at 54 to 78 GigaHz is created for total body immersion in these human DNA frequencies. In 6 individuals, I measured DNA telomeres at baseline and 3 months later after they had used the device 30 to 60 minutes daily at least 5 days each week. Ordinarily telomeres shrink 1% each year. In 4 of the 6 individuals, telomeres lengthened 1% and in the other 2, they did not shorten. This has tremendous potential for health and longevity. In three of the individuals who continued to use the invention, telomeres increased an average of 5.6%, instead of the expected 2% decrease.

## **DESCRIPTION OF THE RELATED ART**

[0004] Normal human somatic cells (i.e., fibroblasts, endothelial, and epithelial cells) display a finite replicative capacity of 50-100 population doublings characterized by a cessation of proliferation in spite of the presence of growth factors. This cessation of replication in vitro is variously referred to as cellular senescence or cellular aging. See, Goldstein, 1990, *Science* 249:1129, and Hayflick and Moorehead, 1961, *Exp. Cell Res.* 25:585. The replicative life span of cells is inversely proportional to the in vivo age of the donor, so cellular senescence is believed to play an important role in aging in vivo. See Martin et. al., 1979, *Lab. Invest.* 23:86, and Schneider and Mitsui, 1976, *Proc. Natl. Acad. Sci. U.S.A.* 73:3584.

[0005] Cellular immortalization (the acquisition of unlimited replicative capacity) may be thought of as an abnormal escape from cellular senescence. See Shay et al., 1991, *Exp. Cell Res.* 196:33. Normal human somatic cells appear to be mortal and to have limited longevity. In contrast, germline and malignant tumor cells appear to be relatively immortal and to have indefinite proliferative potential. Human cells cultured in vitro appear to require the aid of transforming viral oncoproteins to become immortal, and even then, the frequency of immortalization is  $10^{-6}$  to  $10^{-7}$ . See Shay and Wright, 1989, *Exp. Cell Res.* 184:109. Cells obtained from murine sources immortalize at a relatively high frequency without the aid of transforming oncoproteins. A variety of hypotheses have been advanced over the years to explain the causes of cellular senescence.

[0006] Shay et al., 1992, *Experimental Gerontology* 27:477, and Shay et al., 1991, *Exp. Cell Res.* 196:33, describe a two-stage model for human cell mortality to explain the ability of Simian Virus 40 (SV40) T-antigen to immortalize human cells. The mortality stage 1 mechanism (M1) is a mechanism by which cells cease to proliferate after a certain number of population doublings, and the biological molecules that carry out this mechanism appear to be the target of certain tumor virus proteins. An independent mortality stage 2 mechanism (M2) produces crisis in cells that have bypassed M1, with crisis being typified by severe chromosomal abnormalities and ultimately cell death. The M2 mechanism thus prevents tumor viruses from directly immortalizing human cells. The papers noted above describe experiments in which T-antigen expression was driven by a mouse mammary tumor virus promoter to cause reversible immortalization of cells. SV40 T-antigen extends the replicative life span of human fibroblasts by an additional 40-60%. The M1 mechanism is overcome by T-antigen, perhaps by binding to various cellular proteins or by inducing new activities to repress the M1 mortality mechanism. The M2 mechanism then causes cessation of proliferation, even though the M1 mechanism is blocked. Immortality is achieved only when the M2 mortality mechanism is also disrupted. The M2 mechanism appears to cause a dominant repression of the immortal phenotype, because hybrids between mortal and

immortal human cells are generally mortal. See Pereira-Smith and Smith, 1983, Science 221:964-966. As described above, such hybrids between murine cells immortalize at a much higher frequency, so it is relatively easy to obtain immortal hybrids between murine to lymphocyte and myeloma cells to obtain immortal antibody-producing hybridomas, for instance. However, such hybrids are not immortal when produced with human cells.

[0007] The finite replicative capacity of cells may reflect the work of a "clock" linked to DNA synthesis at the telomeres (ends) of chromosomes. Thus, Harley et al., 1990, Nature 345:458, state that the amount and length of telomeric DNA in human fibroblasts decreases as a function of serial passage during aging in vitro. Harley, 1991, Mutation Research 256:271, describes that telomeres of human somatic cells act as a mitotic clock, shortening with age both in vitro and in vivo in a replication dependent manner and proposes a hypothesis for human cell aging and transformation in which telomeres and telomerase, a ribonucleoprotein polymerase involved in telomeric DNA synthesis, play a causal role in cell senescence and cancer.

[0008] PCT patent publication No. 93/23572 describes therapeutic and diagnostic methods relating to telomerase and telomere length. The publication describes oligonucleotide reagents that either reduce loss of telomere length during passage of cells in vitro or increase telomere length of immortal cells in vitro.

[0009] There remains a need for a device that can increase telomere length in mortal cells and methods for extending the regenerative or reproductive capacity of mortal cells and hybrids between mortal and immortal human cells. The present invention meets these and other needs, as described below, first in summary fashion and then in detail with examples.

## **SUMMARY OF THE INVENTION**

[0010] A 39 inch wide one inch piece of foam, 78 inches long, has inside it a 36 inch copper screen, 76 inches long, with a two foot copper wire welded to one corner. One pound of crushed quartz or sapphire crystal is spread over the screen.

[0011] An identical piece of one inch foam is glued to the bottom piece so that the screen is enclosed between the two pieces of foam.

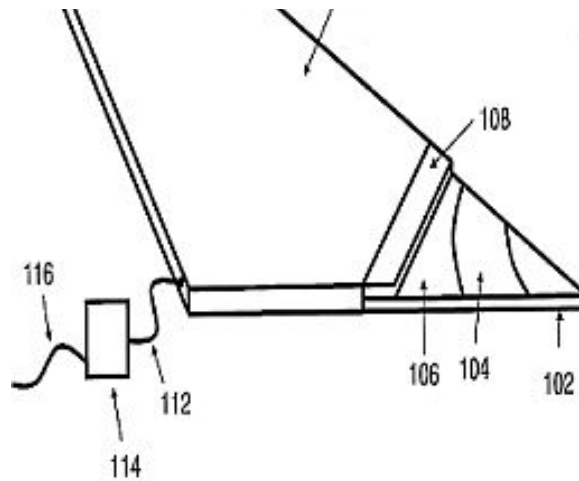
[0012] The foam is rounded at the 4 corners and covered completely with a sturdy plain fabric suitable for a mattress cover with the copper wire coming out a small button hole opening in one corner.

[0013] The copper wire welded to the copper screen extends out a small button hole opening in one corner of the cover. This wire is connected to the Tesla coil for operation.

## **BRIEF DESCRIPTION OF THE DRAWING**

**[0014] FIG. 1 depicts a perspective view of an embodiment of the mat described herein with a cross-sectional view of one corner of the mat.**





## DETAILED DESCRIPTION OF THE INVENTION

[0015] Referring now to FIG. 1, an embodiment of the mat of the present invention is depicted. In this embodiment of the mat, the bottom of the mat is formed by foam pad 102. In the corner of the mat which has been removed for clarity it can be seen that copper screen 104 is disposed on foam pad 102. Crushed crystal material 106 is disposed on the copper screen 104. A second foam pad 108 is disposed on top of the crystal and adhered to the bottom foam pad 102 along the adjacent edges. A cover 110 is disposed over the foam pads, typically with a zipper for ease of removing the cover for cleaning or as otherwise necessary.

[0016] A copper wire 112 is electrically connected to copper screen 104 and extends out from between foam pads 102 and 108, and through a hole provided in cover 110. Copper wire 112 is electrically connected to a Tesla coil 114. Coil 114 may be electrically connected to a power source by conductors 116.

[0017] In one embodiment, the RejuvaMatrix mat consists of a two inch thick mat, in the center of which is a copper screening similar to standard window screen, on which is scattered one pound of crushed sapphire crystal. A copper wire is attached to the copper screening and exits the center of the mat to be connected to a standard Tesla coil. The Tesla coil has an OUTPUT of 20,000 to 50,000 volts at frequency of approx.  $[1/2]$  megahertz. This output produces an electromagnetic field two feet high at 54 to 78 GHz, 75 decibels. The 54 to 78 GHz field is equal to the resonance frequency of human DNA.

[0018] The mat is covered with standard quilted mattress material.

[0019] The top and bottom polyfoam with copper screen and sapphire in the center are glued together with upholstery glue. The entire mat is enclosed with standard quilted mattress material with an opening for the copper wire leading to the Tesla coil.

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<http://www.faim.org/longevity/telomere-rejuvenation-key-health-longevity.html>

## Telomere Rejuvenation — Key To Health and Longevity

by C. Norman Shealy, M.D., Ph.D.; Professor Emeritus of Energy Medicine, Holos University Graduate Seminary

## Abstract

Telomeres ordinarily shrink by 1% annually, from birth to death. The telomeres of people with unhealthy habits have much faster shrinkage, while those of people with the best habits and genes shrink at a slower rate, thus enabling such people to live to approximately 100 years. Ultimately, telomere health is a major determinant of health and longevity. Rejuvenation or regrowth of telomeres is, therefore, a major key to longevity and health.

In a pilot study, telomeres in 6 individuals, 3 men and 3 women from 50 to 74 years of age, were measured initially in lymphocytes and neutrophils. Each participant then spent 30 minutes at least 5 days each week sitting or lying in an electromagnetic field of 54 to 78 GHz, 50 to 75 decibels, or 1 billionth of a watt per centimeter square.

These same frequencies are reported to be present in ambient sunlight at an intensity of ten-billionths of a watt per centimeter square. Human DNA has been reported by Ukrainian physicists as resonating at 54 to 78 GHz.

After 3 months of this electromagnetically generated solar homeopathic approach, average telomere length had increased 1%. After 10 months of use of the device, average telomere length had increased 2.9%. Theoretically this "reverses" 2.9 years of telomere aging.

Using this approach, a 75 year old would theoretically reverse telomere aging by 50 years within a 14 year period. Obviously, many other parameters of health need to be evaluated as we continue these studies long term.



## Telomere Rejuvenation

In 1925 a Russian engineer, Georges Lakhovsky, published his classic book, *The Creation of Health*, in French. It was translated into English in 1935 and is still in print. He stated that human DNA has a resonant frequency of 50+ gigahertz (GHz – billions of cycles per second).

In the early 1980s, Ukrainian physicists determined that this frequency was 54-78 GHz and

further reported that a majority of illnesses were "cured" by applying these frequencies to acupuncture points. Lakhovsky further reported "curing" many illnesses, including cancer, by applying a Tesla coil to two copper coils placed three feet apart with patients sitting in the center of these coils with the head near the center of the field induced by the Tesla coil. Tesla coils emit a random range of frequencies from 1 Hz up to at least 100 GHz.

### **Figure 1. A modification of the Lakhovsky apparatus**

#### **Figure 1. A modification of the Lakhovsky apparatus.**

In 1994, under an IRB protocol, 75 patients were treated with a modification of the Lakhovsky apparatus.<sup>1</sup> Twenty-five patients each had rheumatoid arthritis, depression or chronic back pain. They sat for 60 minutes daily, 5 days a week for 2 weeks, in a 24 inch square cubicle, 48 inches high, with copper plates on the walls and a copper tubing pyramid over the base so that the copper pyramid and the copper base were physically connected. A Tesla coil was connected to the copper tubing and activated during the treatment. At the end of 2 weeks, 70% of the patients with depression or rheumatoid arthritis were markedly improved but only half of the back patients improved (Fig. 1).

Shortly after that, a portable transcutaneous electrical nerve stimulator (TENS) was developed. This device included output of 54-78 GHz at 50-75 decibels of energy, the same intensity used in the Ukraine. Five specific acupuncture circuits were activated with this GigaTENS device and specifically raised the DHEA, neurotensin, aldosterone or calcitonin, while the 5th one lowered free radicals significantly. All of these studies, except for aldosterone, have been published.<sup>2,3,4</sup> The circuit that raises DHEA was subsequently proven to treat successfully 70 to 80% of patients with rheumatoid arthritis, migraine, diabetic neuropathy, or depression. Stimulation at these frequencies also increases calcitonin and lowers free radicals.

Despite the neurochemical and potential clinical benefits, most individuals offered the opportunity to use these circuits would not spend the 30 minutes daily required for such treatment. Since the Ukrainians had stated that these Giga frequencies are absorbed through the skin, specifically through acupuncture points, it appeared that the only reasonable way to immerse the body in these fields, without great effort on the part of the individual, was to provide the field while participants were lying down. Eventually this led to the creation of a 2-inch thick polyfoam mat in the center of which is a copper screen with crushed sapphire crystal placed over it. Copper wire from the center of that mat leads to the Tesla coil. When the Tesla coil is activated, a field of 54-78 GHz 2 feet high and around the mat is produced. Six individuals volunteered to participate in the study. Blood was drawn initially for analysis of telomere length of granulocytes and lymphocytes.

Three and one half months later, telomere length was measured again and in 4 of the 6 subjects, telomere length had increased by approximately 1%. At the end of 10 months, blood was again drawn and telomere length had increased an average of 2.9%. Telomeres ordinarily shrink 1% every year from birth forward.

Telomeres are responsible not only for the length of life but also the integrity of DNA and thus ultimately for health itself. Individuals using this approach can place the 2-inch mat on top of their mattress, plug it into a timer that can go off in 30 to 60 minutes while they are sleeping and obtain the benefit of "lying in a field effect of human DNA." Continuing studies



will be done. All telomere blood tests were done at a reference lab, Repeat Diagnostics.

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### About the Author

C. Norman Shealy, M.D., Ph.D. is President of Holos Institutes of Health, Inc., a non-profit organization focused on research, education and education in holistic health. He was the founding President of Holos University Graduate Seminary in Bolivar, Missouri, where he is now Professor Emeritus of Energy Medicine, and was founding President of the American Holistic Medical Association in 1978. He has 13 patents in the field of Energy Medicine, has published 26 books and 300 articles.

His innovations include Dorsal Column Stimulation, Transcutaneous Electrical Nerve Stimulation (TENS), Biogenics, the software for self-regulation, and the RejuvaMatrix®, his most recent discovery, for rejuvenating telomeres, the tips of DNA responsible for health and longevity. His 14th patent is pending.

To learn more, visit the Dr. Norm Shealy web site or contact him at [norm@normshealy.com](mailto:norm@normshealy.com). See also Telomeres, Health and Longevity.

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