

WAVE OPTICS OF CHROMOSOMES FOR THE REMOTE TRANSFER OF THE BIOHOLOGRAPHIC ANALOGUE OF ASPIRIN

Irene Caesar

President, Wave Genome LLC 30 Barstow Road, Unit SUPT, Great Neck,
New York 11021

ABSTRACT

*Current medical treatment, including chemical pharmaceuticals, EMP treatments, mRNA therapies, and genetic engineering via cutting and pasting DNA snippets do not take into consideration the Structural Damage in Chromosomes they cause by excessive chemicals, electromagnetic fields and homologous nucleotides, all of which break the precisely calibrated geometry of a chromosome. And the Structural Damage of Chromosomes is the major cause of all diseases. Extreme cases of the Structural Damage in Chromosomes are turbo cancer, AIDS, sterilization and prion disease as the ultimate case of encephalopathy. Thus, an urgent task of the biological science and technology is to address the issue of the Structural Damage in Chromosomes. This task includes the necessity of creating a fundamental theory of how the structure of a chromosome operates, and a biotechnology that corrects and enhances the structure of chromosomes. In this paper, I introduce my fundamental theory of Wave Optics in Chromosomes, and the biotechnology of Bioholography for the correction of the structural damage in chromosomes. Specifically, I introduce the theoretical and technological paradigm of the Remote Transfer of the Bioholographic Aspirin Analogue (aka **Haspirin**), including the results of the clinical trials conducted by my company Wave Genome LLC at the Moscow State Bauman Technical University in 2017. **Haspirin** clinical trials had verified and confirmed my fundamental theory of Wave Optics in Chromosomes.*

KEYWORDS

wireless optogenetics, computational biophysics, structural genomics, scalar waves, bioholography

1. WAVE OPTICS OF CHROMOSOMES

Current medical treatment, including chemical pharmaceuticals, EMP treatments, mRNA therapies, and genetic engineering via cutting and pasting DNA snippets do not take into consideration the Structural Damage in Chromosomes [1] they cause by excessive chemicals, electromagnetic fields and homologous nucleotides [2], all of which break the precisely calibrated geometry of a chromosome. And the Structural Damage of Chromosomes is the major cause of all diseases. Extreme cases of the Structural Damage in Chromosomes are turbo cancer, AIDS, sterilization and prion disease as the ultimate case of encephalopathy. Thus, an urgent task of the biological science and technology is to address the issue of the Structural Damage in Chromosomes. This task includes the necessity of creating a fundamental theory of how the structure of a chromosome operates, and a biotechnology that corrects and enhances

the structure of chromosomes. In this paper, I introduce my fundamental theory of Wave Optics in Chromosomes [3], and the biotechnology of Bioholography for the correction of the structural damage in chromosomes [4]. Specifically, I introduce the theoretical and technological paradigm of the Remote Transfer of the Bioholographic Aspirin Analogue (aka "*Haspirin*"), including the results of the clinical trials conducted by my company Wave Genome LLC at the Moscow State Bauman Technical University in 2017. The Bioholographic Analogue of Aspirin was chosen on purpose, since it provides an easily verifiable model of clinical trials for Wave Genome's LLC Bioholography. The publication of the clinical trials results was delayed on purpose, since till 2017, I have conducted other experiments with application of Wave Genome's LLC Bioholography to other health conditions, such as, for hematoma, neurodermatitis, melanoma, and others. *Haspirin* clinical trials had verified and confirmed my fundamental theory of Wave Optics in Chromosomes.

I have created the fundamental theory of Wave Optics in Chromosomes (1985-2010), based upon my theory of Wave Crystals [5], which I had created in 1985, long before anybody in the field of Bioholography [6]. My theory of Wave Crystals is the "theory of everything", and applies to any and every field of science. This theory states that the life-sustaining information is nonlocal in time and space and is transmitted not via linear finite signals of electromagnetic nature, but remotely and instantaneously via Refraction in the Wave Crystals, which have one and only Focus of the Quantum Nonlocality / Zero Center of the Zero Field, with this Zero Center being one and the same for chromosome and galaxy [7]. Instead of the term "Quantum Entanglement", I have offered the term "Refraction Entanglement" [8]. Wave Crystal is a Hologram, nonlocal in time and space, in such a way, that the Universe is entirely in its every Matrix Point (the Holographic Principle). The Hologram is a specific quality of a signal, so that the Holographic Signal contains an infinite number of frequencies, particles and fields [9]. In 2012, I have formulated the Implication of the Holographic Principle: "if the Universe is entirely in its every Matrix Point, then, every Matrix Point is not simply different from any other Matrix Point, but is unique". Therefore, every Wave Matrix is both nonlocal and unique. And, with two exact copies of the same Wave Matrix, we can transmit information between these two copies remotely and instantaneously, since, in the Quantum Nonlocality, they constitute one and the same Systematic Whole [10].

I have applied my fundamental theory of Chromosomal Wave Optics to the research and development in the field of Bioholography by my company Wave Genome LLC, which I have founded in 2010, for the production of Digital Bioholographic Pharmacies; the remote management of biosystems via laser signal; and the production of large-size and small-size Generators of the Form for creating the scalar wave diffraction grating to deliver Bioholographic Pharmacies. These Generators of the Form include electret-based wearables (applicators aka "generators"); large-size MedBeds; and Helmets [11].

I was the first scientist to produce the electret-based applicators (aka "Psi-generators") as being coded by the individual human Wave Matrices; to treat these Wave Matrices as Bioholograms; and to code the electrets with Bioholograms via lasers. The MedBed (RA Sarcophagus) is the only medical bed on the market, which is based upon Bioholography, and is operated by a green laser. My company was the first company to release Digital Pharmacies that are based not upon EMPs, but upon the Zero Signal, produced by the laser-originated scalar wave [12].

I have also created the concept of the Scalar Wave Capacitor, which combines an electret, which produces a scalar wave, and a conductor as Biometal to prevent this scalar wave from being self-extinguished. My company Wave Genome LLC, for example, had produced the combination of Resveratrol and Bivalent Organic Selenium, which has much more cancer-

preventive potency, than its Indian analogue of Resveratrol and Copper [13], since our nervous system runs on selenium.

The Universe is 93% energy, and 7% particles, including cells and molecules. We are water for 85%. But this water / a liquid crystal media is only 7% of what we are. For 93%, we are the wave crystal media / Wave Crystal. So, the crystal wave media (Wave Crystal) is the basis for the liquid crystal media [14]. Between the cell division cycles, chromatin exists in a chaotic state. But, during the cell division, chromatin literally crystallizes, forming two chromatids, which form a chromosome [15]. The same gene is expressed in functional species via a metacentric chromosome, and in dysfunctional individuals via an acrocentric chromosome. The same gene is expressed via a metacentric chromosome in humans, and via an acrocentric chromosome in monkeys [16]. A metacentric chromosome has the shape of an equilateral cross, with isometry or the spatial translational symmetry; while an acrocentric chromosome is half of a metacentric chromosome, and exhibits gross asymmetry [17]. A metacentric chromosome is analogous to a well-centered and focused eye crystal, while an acrocentric chromosome is analogous to a myopic or farsighted eye [18]. A chromosome is a lens that allows our cells to focus the needed wave information during the cell division, analogously to a crystal in our eye [19]. And, since the world is 93% energy, and only 7% particles, this isometric lens is a specific wave interference pattern – a scalar wave diffraction grating with certain Wave Optics, that is, Refraction towards the Focus of the Wave Crystal [20].

Thus, the efficacy of our physiological processes, our functionality, longevity and reproduction depend upon the structural isometry of our chromosomes during the cell division – upon the ability to produce a coherent trigger-signal (a signal with a constant frequency), and a scalar wave, based upon this coherent trigger-signal. The female gender chromosome is metacentric. That is why a female is capable of giving birth. And the male gender chromosome is acrocentric. That is why a male is not capable of giving birth. The male gender chromosome is literally the destruction of the female gender chromosome. And, ultimately, any structural damage in chromosomes leads to sterilization [21]. Only my fundamental theory of Wave Optics in Chromosomes can explain why the structural damage in chromosomes leads to sterilization, turbo cancer, AIDS and prion disease as the extreme case of encephalopathy [22]. Also, only my fundamental theory of Wave Crystals can explain the healing effect of spiritual practices, such as meditation or prayer. Meditation and prayer produce a theta brain wave state, which is a coherent trigger-signal, capable of producing the scalar wave diffraction grating with Refraction towards the Zero Center of the Zero Field / Focus of the Quantum Nonlocality, one and the same for the chromosome and the galaxy [23]. Regeneration and clear vision are possible only in the theta brain wave state. The structural damage of chromosomes in the brain leads to dementia. The opposite is also true: the effort of producing the theta brain wave state leads to correction of the chromosomal structural damage, affecting all the physiological systems remotely and instantaneously [24].

Since universe is holographic, we can record and transmit only holographic information based upon Geometrical Optics of Chromosomes. Every biohologram is a tetrapole, with two sets of opposite poles, as a self-sufficient systematic whole. Each pole is an inversion of the spin in the integral torsion / torus. The inversion of the spin causes any external incoming linear wave signal to reflect back upon itself, so that a scalar / standing wave emerges, when the peak of the forward-going wave is nullified by the trough of the same wave when it is reflected upon itself (as the result of the superposition of the peak of the incoming wave with the trough of its reflected wave in phase opposition) [25].

When the coherent trigger-signal is continuous enough, there emerges the scaling of the scalar wave diffraction grating, when its every segment itself becomes a scalar wave, from micro to macro dimensions, and vice versa, *ad infinitum*. The scaling results in the emergence of Refraction, in accordance with the Refraction Code in this unique and nonlocal Wave Crystal [26]. The scaling of the scalar wave diffraction grating explains the nonlocal nature of the Biohologram, i.e., the ability to manage biological systems remotely and instantaneously, including the remote instantaneous connection of all the cells and molecules and atoms of our body. It also explains the existence of the *a priori* knowledge, e.g., of the infinity, not available in empirical experience, and the importance of this *a priori* knowledge for human regeneration, reproduction and general physiological wellbeing [27].

The scalar wave diffraction grating refracts the external linear signals towards the Zero Center of the Wave Crystal / Hologram, analogously to the focus of the crystal in our eye. Via changing the shape of the crystal (the lens), i.e., the Refraction within the diffraction grating, our eye receives different information. And so do our chromosomes [28]. DNA is self-protected from any external linear signal, since it is a paradigmatic scalar wave (or a scalar wave generator), with one strand going one direction, and another strand – the opposite direction. Again, the scalar wave annuls any external linear signal, when the peak of the forward-going wave is annulled by the trough of the same wave, when this wave is reflected back upon itself (in phase opposition). While the RNA is a single-stranded spiral antennae, receiving external linear signals via expanding and contracting its spiral step. Thus, the RNA is vulnerable to the external signals. The secret of Genome lies within the shape of the RNA, as an inductor, which collects and stores energy in the form of the magnetic field. Genetic enhancement is possible only if the RNA collects and stores the coherent linear signals and long enough; and only if the DNA nullifies this signal in its scalar wave via creating the spatial translational symmetry of metacentricity of the Holographic Signal, imposing it upon the chromosomes during the cell division. The introduction of any homologous RNAs will lead to the Effect of the Destructive RNA Interference, resulting in cell apoptosis [29].

The totipotency of the Embryonic Stem Cells and their telomere regeneration instead of a telomere shortening depend upon the activity of the X chromosome which is metacentric. The Embryonic Stem Cell is a precisely calibrated Refraction Code at the Zero Center / Focus of the Wave Crystal. The process of cell differentiation is a process of modulating the scalar wave diffraction grating of the Embryonic Stem Cell Wave Matrix. We can increase the regenerative and reproductive potency of the Embryonic Stem Cells, themselves, via applying the Holographic Signal. The Holographic Signal is a coherent, impulse signal, reflected upon itself within the resonator; and, then, refracted towards the Zero Center of the Wave Matrix. As a result, the Holographic Signal gets modulated via the Embryonic Stem Cell of a certain individual. The Holographic Signal is nonlocal and instantaneous in the Quantum Biononlocality, and is the basis for the Remote Management of the Biosystems via the Refraction Code of the Embryonic Stem Cell Wave Matrix. Wave Genome LLC was the first company in the world to create the Digital Biohologram of various kinds of Stem Cells for the Bioholographic Remote Stem Cell Therapy [30].

In the following I introduce in detail the Bioholographic Aspirin Analogue (aka *Haspirin*) by my company Wave Genome LLC, as a paradigm of Bioholography for the recording and remote transmitting of bioholograms via laser spectroscopy and coding electrets at nanolevel via laser. The technology creates the “lenses” assisting our chromosomes in correcting their Refraction for focusing genetic bioholographic information, both locally and remotely.

2. WHY DO WE NEED THE BIOHOLOGRAPHIC DRUG (H-DRUG) OF ASPIRIN?

Cardiologists around the world have come to a consensus on the advisability of prescribing aspirin to patients with chronic ischemic heart disease [31]. According to all the current recommendations, the use of aspirin as a platelet-aggregation inhibiting drug significantly reduces the risk of developing cardiovascular dysfunction. Platelet-aggregation inhibiting therapy is an important component of the primary and secondary prevention of cardiovascular diseases and their complications. It is certainly justified to prescribe the platelet aggregation inhibitors, for example, in acute coronary syndrome, because it is caused by the build-up of the atherosclerotic plaque, and patients suffering from this disease always have thrombocytosis of one degree or another. Obviously, without the use of antiplatelet drugs, effective treatment of such patients is impossible. At present, taking aspirin for primary prevention is considered to be justified when there is a high risk of complications of cardiovascular diseases, in particular, a risk of myocardial infarction (in more than 45-50% of patients during 10 years of observation).

It is simple enough to recognize such a patient: it is a smoking man or woman with excess weight at the age of 45 and beyond, and with a blood pressure of 140/80, and their lipid profile as follows: LDL-C 3.5 mmol / L, HDL-C 1.0 mmol / L. If such a patient quits smoking and changes his/her lifestyle to a more health-oriented one (from changing their diet to a regular physical exercise), the risk of developing myocardial infarction will be less than 10%.

The prescription of an antiaggregant therapy for the primary prevention should be addressed each time individually, depending on the calculated risk of myocardial infarction and other complications of vascular disease. The most effective is the use of the antiaggregant therapy by patients with a history of stenting the coronary heart arteries of the heart and aortocoronary bypass. Aspirin significantly reduces the risk of developing thrombosis; and in patients who underwent a coronary intervention, shunts are even more vulnerable to thrombogenesis than coronary arteries. The incidence of avoiding the failure of the cardiovascular system and death for such patients is increased by aspirin from 37% to 55%. However, the long-term use of acetylsalicylic acid drugs is often accompanied by the development of complications such as gastritis, gastrointestinal ulceration or gastrointestinal bleeding, and other side effects [32].

Apparently, it is time to find an adequate substitute for aspirin. Wave Genome LLC had created a bioholographic alternative to aspirin, which does not have overdose and/or side effects issues; and had conducted clinical trials of the bioholographic aspirin. The study proved the preventive therapeutic effect of a bioholographic drug comparable in its action with the acetylsalicylic acid preparations. The results of the study demonstrated the advantage of using a bioholographic drug in the treatment of patients with proven atherosclerosis in comparison with aspirin due to the absence of overdose and side effects issues. The bioholographic aspirin does not have a direct irritating effect on the gastric mucosa, and does not undermine the positive role of thrombocytes in hemostasis for plugging and repairing damaged blood vessels, thus preventing blood loss. The study has shown the safety of the bioholographic drug for the patient. This means that a bioholographic aspirin is the only alternative for patients with aspirin intolerance. The clinical trials tested the bioholographic aspirin on patients with diabetes (3 cases), and a patient who had undergone the coronary artery bypass grafting (1 case). These patients should be preferably prescribed a bioelectronic aspirin.

Another problem with aspirin is aspirin resistance [33]. According to various authors, it is from 10 to 45%, while there is no resistance to the bioelectronic / bioholographic aspirin at all. In addition, the bioelectronic aspirin does not interact with other drugs, as well as with alcohol. Hence, the bioelectronic / bioholographic aspirin is not only comparable in effectiveness to aspirin, but is surpassing its effectiveness and, to a large extent, its safety.

3. TECHNOLOGICAL MODEL FOR CREATING HASPIRIN – HOLOGRAPHIC ANALOGUE OF ASPIRIN

Wave Genome LLC had conducted a pilot comparative study of the pharmacological platelet-aggregation inhibitors of the Aspirin type and its analogues. Wave Genome LLC had studied the chemical and physical properties of the preparations by various producers, and had chosen Aspirin by Bayer (Germany) for its highest purity of the substance and lowest deviation from the declared properties. Wave Genome LLC applied holographic technologies in order to obtain its 3D model and transferred this model via both the analog protocol and the digital protocol onto the media of the applicator chip. Wave Genome LLC had also conducted the comparative study of various electret materials for the applicator chip. As a result, Wave Genome LLC had selected an electret of natural origin. The transfer of bioholographic information of the drug upon the applicator chip is as follows.

Wave Genome LLC had created the Holographic Aspirin Analogue / Haspirin, using a newly invented Nonoptical Digital Holographic Microscope, which simplifies the operation of a microscope, and makes it more ergonomic. This technology allows to record low signals of a low-energy electron beam -- a total charge of 10 electrons, with a spatial resolution of 40 μm . The high quality of the registered holographic scalar wave interference of the pharmacological preparation made it possible to convert it into a digital and analog model with a reliable result.

The principle of this Digital Holographic Microscope operation consists in the recovery of the complex amplitude of the wave in the plane of the observed object from its Hologram. The Hologram is received via the superposition of the object beam and the reference beam. But, instead of a photoelement, which requires a complicated photochemical processing, Wave Genome LLC had used the matrix receiver of waves. In this case, the recovery of the hologram is produced not in the physical, but in the virtual space with the help of the mathematical models of the physical space. Up to date, many models of the Digital Holographic Microscopes have so far been created, but all of them have a very complex structure with lenses and the tuning mechanisms for focusing. At the same time, the models of the Digital Holographic Microscopes without lenses have a too low resolution.

Wave Genome LLC was able to use a non-lens Digital Holographic Microscope with the resolution at the same level as the Digital Holographic Microscopes with lenses due to using a reference beam with a spherical wave front instead of a flat wave front. In this case, the minimal half-period of the interference picture has the bigger size than the pixel of the matrix receiver. And this had allowed us to register the Digital Hologram without any loss of information. The main components of such a Digital Holographic Microscope are the semiconductor laser; the digital CCD camera (Charge-Coupled Device); the optical fiber; and the microoptic electromechanical phase modulator. If there is a need of recording the Hologram of objects with different surface reflection coefficients, the device has the microoptic electromechanical attenuator in both the reference beam and the object beam. Thus, the construction of the Digital Holographic Microscope is greatly simplified, while the most important role in its operation is played by the software. The transfer of the Hologram is

done via the USB interface. Lowering the size of the Holographic Microscope increases the vibrational stability, and the precision of the Digital Holographic Microscope.

The operational scheme of the Digital Holographic Microscope is as following. The optical fiber source of the beam is split into the reference beam and the object beam via the optical fiber splitter. There might be an attenuator installed in order to record the Hologram of the objects with different coefficients of transmission or reflection. For the reference beam, there is the phase modulator installed for the possibility of changing different phases between the reference beam and the object beam in the range of 0 to 360. The object beam goes through the observed object, creating its diffraction image in the matrix receiver. At the same time, the matrix receiver is subjected to the reference beam, which has the spherical wave front, so that the Hologram is created in the matrix receiver.

The process of Holographic encoding goes in stages. The autocathode emits a coherent electron flow. With voltage between the plate beneath the object under investigation (donor) and the autocathode, the low energy electron beam of low energy reaches the object under study (donor), and their interaction takes place. Most of the electron beam passes through the object under study (donor) without changing (carrier wave), while a part of it interacts with the atoms of the object under study (donor), changing the phase of the wave (a wave with a changed phase). The remainder of the electron beam changes its direction after its interaction with the object under study (donor). This part of the electron beam does not affect the operation of the device and is not taken into account when obtaining an interference image. The first two parts of the electron beam travel through the space to the detector of the low-energy electron beam without any distortion from external influences. To eliminate such external technogenic interference, the Digital Holographic Microscope has a two-component permalloy camera – a mirror chamber as an internal cylinder, which protects the coherent electron beam from the electromagnetic fields, eliminating any possible negative influences. When a beam of electrons passes through the space between the object under investigation (donor) and the detector of the low-energy electron beam, two electron waves (waves with a modified phase and a reference wave) are superimposed, resulting in an interference holographic image of the object under study. A low-energy electron beam detector is installed at a distance of 10 cm from the substrate of the investigated object.

In the low-energy electron beam detector, the electron beam passes through two amplification stages. First, it hits the microchannel plate of the MCP with a gain of 103. The amplified flow after the MCP passes through the space to a phosphor screen, which is located at 1 mm from the MCP. To obtain the necessary amplification, an additional voltage is applied between the MCP and the phosphor screen. The amplified electron beam falls on the phosphor screen, on which a luminescence appears, allowing the registration of an interference pattern. Using a fiber optic disk, as the base of the phosphor screen, allows to eliminate any undesirable light rays scattering. The resulting interference pattern of the object under investigation is transmitted to a PC with special software that converts the interference pattern into a holographic three-dimensional image of the object under study.

At the same time, a simultaneous digital and analog recording of the entire wave interference spectrum takes place, which allows to study and archive the chemical characteristics of the studied substance translated into an information-wave state. In addition to direct visual recording of the entire spectrum on the phosphor screen, the detector unit of the holographic microscope, operating via the low-energy electron beam, can be supplied with a CCD matrix that makes it possible to receive a digital signal.

This technology was successfully tested by Wave Genome LLC in the Moscow State Bauman Technical University laser laboratory in real time. As a result of the experiments, the achievement of this biologically significant result was confirmed: the bioinformational value of the holographic image of the object under study, and the ability to preserve the information-wave characteristics in the transfer of these properties to the biosensors and applicators.

4. CLINICAL TRIALS RESULTS FOR HASPIRIN – HOLOGRAPHIC ANALOGUE OF ASPIRIN

The clinical trials were conducted in accordance with the government rules and regulations, at the Moscow State Bauman Technical University clinic. The clinical trials have been conducted for 14 days, as a blind experiment with two groups of 19 participants. In the Study Group, eleven healthy volunteers were exposed to *Haspirin*: each participant was wearing an electret-based applicator with *Haspirin* (Holographic Aspirin) encoded into the electret by laser. In the Control or Placebo Group, eight healthy volunteers were exposed to the placebo: each participant was wearing a non-electret applicator chip with no *Haspirin*. There were thirteen male and six female participants, of whom at least six are women) under the age of 30 years.

The clinical trials had proven the efficacy of *Haspirin* in the Study Group in comparison with the Control Group receiving placebo. The Study Group had demonstrated a reliable improvement in the functioning of the hematopoietic system and the rheological aggregate blood states according to the results of biochemical, serological studies and the study of the aggregate state and the functions of blood coagulation. At the same time, in the Placebo Group, the studied indicators remained practically unchanged.

The clinical trials have been done on the healthy participants without any acute disease, and without any acute exacerbation of a chronic disease, and who did not take any medication for at least a week before the start of the clinical trials. An equal ratio of time exposure was used for the Study Group and the Placebo Group.

Each participant signed the informed consent form for medical research and examinations. Each participant's examination took place three times a week. The examination consisted of (1) a primary examination (medical examination; anthropometry; examination by the cardiologist and electrocardiography; general blood analysis; general urine analysis; ultrasound of internal organs; psychological testing, stress tests (Shtange, Ruffier-Dickson, Fukuda); (2) an examination before the experiment (Thermometry; computer diagnostics of the activity of the cardiovascular system; examination by a cardiologist); (3) an examination during the experiment (computer diagnostics monitoring the activity of the cardiovascular system and respiratory system; psychological testing; stress tests (Shtange, Ruffie-Dickson, Fukuda); examination by the physician); and (4) a post-experiment examination (anthropometry; electrocardiography; general blood analysis; general urine analysis; ultrasound of internal organs; echocardiography; psychological testing; examination by the cardiologist).

The results of the clinical trials of the effect of *Haspirin* indicate that there is a tendency for achieving even a greater degree of psychotherapeutic effect. It should be noted that *Haspirin*, in terms of tolerability and the desire to continue, does not fundamentally differ from the placebo effect, which indicates that the bioelectronic / bioholographic drug has no detrimental components to provoke the negative subjective assessment. Besides its proven antiplatelet results, *Haspirin* had also demonstrated the enhancement of other psycho-

physiological functions, including mental clarity.

Thus, the conducted clinical trials, supported by the technical tests of a laser, had proven that the *Haspirin* bioelectronic / bioholographic drug produces an overall stimulating effect, and enhances not only the blood antiaggregating processes, but also the other most important protective functions of the human body. This allows us to conclude that Wave Genome's LLC technology for producing the bioelectronic / bioholographic drugs, like *Haspirin*, has great potential for therapy, regeneration, and rejuvenation, as well as for enhancing human bodily systems. Specifically, Bioholography with its use of scalar waves promotes the synchronization of neural processes in the cerebral cortex and the elimination of the generators of pathological excitation, as a harbinger of somatic disorders.

Also, Wave Genome LLC had unequivocally established not only the preventive antiplatelet effect of the *Haspirin* bioelectronic / bioholographic drug, its positive effect on the hematopoietic system and general somatic state, but also its safety.

The results of this study are as follows.

HOLOGRAPHIC ASPIRIN (HASPIRIN) EFFECTIVENESS

Measurement Units	Before Therapy	7th Day	14th Day
1	2	3	4
1. Time of coagulation	4,8 ± 2,2	6,8 ± 1,9	7,1 ± 1,1
2. Time of reaction	59,0 ± 0,5	63,1 ± 0,7	64,8 ± 0,5
3. Clotting index	90,3 ± 7,8	98,6 ± 10,5	96,5 ± 5,6
4. Clotting time	28,0 ± 2,7	29,9 ± 2,4	29,9 ± 3,0

The Holographic Method can be used to scan the properties and to obtain the characteristics of the structures of complex molecules in real time for various tasks of medicine and bioengineering, so as to create the bioelectronic / bioholographic drugs with specified properties superior to the conventional pharmaceuticals.

Wave Genome's LLC proven technology of Bioholography for Digital Bioholographic Pharmacies and Bioholographic applicators (wearables), according to my fundamental theory of Wave Optics in Chromosomes, can be used for avoiding the side effects and overdose issues characteristic of the conventional medicine and pharmaceuticals. Bioholography is especially important for solving conventional medicine and biology's insolvable problems, allowing the obtention and the transfer in real time of complex molecules structural properties, which are undetectable by the devices used by the conventional medicine and biology. Bioholography leads to the creation of new bioelectronic / bioholographic devices used for (1) detection and recording; (2) archiving and editing; (3) transfer of the bioelectronic / bioholographic information, based upon the digital files and the electret-based applicator-chips. The major achievement of Wave Genome's LLC Bioholography consists in solving the major problem of healthcare: correcting the chromosomal structural damage by restoring the proper Chromosomal Wave Optics.

The success in the conducted clinical trials of *Haspirin* had led us to the further development of Bioholography, namely, to the application of Bioholography to the stem cells therapy, including human embryonic stem cells and stem cells, extracted from the human epithelial cells. The biological material was provided by the Bank of stem cells (the Prenatal Center of the Russian Academy of Sciences and the Cryocenter LLC). Wave Genome LLC had studied stem cells

in the spectral range with a maximum possible capture (ultraviolet and low-intensity infrared). And the entire complex of the stem cell properties was recorded using the Bioholographic technologies. The 3D Stem Cell model was obtained (3D snapshot). And the protocols for the editing, archiving and transfer were established via analog and digital media.

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AUTHOR

Irene Caesar, Ph.D., is the Founder and President of Wave Genome LLC, company which has pioneered Bioholography for the remote management of biosystems (founded 2010); Co-founder of "Matrix City" Consortium with the Institute for National Security in Moscow for building self-sufficient human settlements based upon the remote management of biosystems, climate and geophysical processes for the first time in the history of humankind (founded 2012), presented in the Honorary Lecture at the Harriman Institute of the Columbia University in September 2012; Co-founder of the Quantum Biointernet for the remote rejuvenation via distant laser signal (May 2013); Colonel of Irkutsk Cossack Military, awarded the Medal of Faith and Service to Russia (2014). Dr. Irene Caesar received her doctoral degree from the Graduate Center of the City University in New York.

