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### **Mini Review**

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## E=<sup>i</sup> mc<sup>2</sup> - New Law of Informational Space-Time World

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### **Mini Review**

Medicine, applying into practice the theoretical principles of how to protect or restore personal and social health, now moved from the basic level of cellular nuclei towards the atomic nuclei with a thermodynamic interpretation according to the philosophy of cosmic being [1,2]. Each person belongs to the triune bio-cosmos, whose quintessence is a spontaneous, constant, and informational interchange of mass and energy among directly or indirectly visible cosmic particles. Bidirectional information rays fill all cosmic spacetime without obstacles and interact on its information patterns (fields) with matter and energy. Each cosmic part (being) consists of information, mass, and energy, whose quantum equivalence feedback  $E=^{i}mc^{2}$  is raised to the power of information (=<sup>i</sup>), which belongs to its cause while already part of its effect with its environment. Information has no qualities (e.g. is not either hot, could, net or dry) and has no contrary or unnatural motion. It is weightless, transparent, frictionless, and undetectable chemically or physically, and literally permeating all matter and space. In addition to its many exciting features, it has an attribute of polymorphism and may exist in many different forms yet remain itself, i. e. retains its identity even though it may be expressed in different ways. People utilize size, shape, look (colour, smoothness, porosity), temperature, movement and time as an informational description of reality. For example, each human cell threatened with the end of its metabolism may extend its life as a neoplasm cell only with increased information, mass, and energy dissipation in its environment. This dissipation becomes a local sign of carcinogenesis, which begins with an illness threatening the existence of the whole multicellular organism. Therefore, man should try to prevent carcinogenesis instead of curing only cancer diseases, because many things are known to increase the risk of carcinogenesis which is an alternative of cellular or social death [3-6]. Every structure or process in the universe contains in its cause information, which in the cause-effect feedback is a desired and immediately afterwards created effect [7,8]. Unfortunately, false information is often used

to agitate for harmful ideas, what starts a new type of diseases-informatonoses.

Man does not create the natural laws but can only strive to understand them better in order to use them. The essence and existence of information rays and patterns were proved by experimental documentation of sight's nature as integrated part of reality. The same result can be seen using the mirror at which everybody is looking for every day. Mirror picture appears thanks to resonate informational field ("pattern information") in place of observer (or its apparatus) localization, wherein the information rays coming from real object and from eyes meet together, having the identical value of their unique waves. Mirrored picture does not contain any single atom of the natural person, because it is thanks to resonate informational field ("pattern information"), which can be fixed technically (e.g. photographed). So, each observable beings refer to the capability to detect not only light, but first of all the information rays coming from any object and moving in any direction not being restricted, what happens e.g. with light rays or speech sounds. The information determines the universe according to the feedback formula  $E = imc^2$  and despite their different forms remains the highest element of reality, inseparable from cosmic mass and energy. Mass is just super concentrated form of energy, and both entities can be turned from one form to the other and back again owing to information rays and pattern field. Information emerges under appropriate conditions as potential attribute of truth, good and beauty. The truth about the natural cause of cancer until recently was considered in isolation from the three-fold reality of mass, energy, and information. From the time of Socrates, Plato and Aristotle the universe was understood as the abstract soul and the matter-energy body of a person, who, through words, can express his psycho-emotional state. Presently information can be defined as the existence of each event in a quantum state, from its beginning to its end form, because the beginning of each event belongs to its cause, but at the same time is already part of its effect [9,10].



This is why oncology must bring back the original idea of holistic medicine, which demands increased medical procedures on the side of health and not only on the side of predominantly diseases, but e.g. cancer cells are also foreboding signals on the last human way to die and therefore man should try to treat the carcinogen.

Genesis instead to cure only the cancer diseases. In treating patients' doctors use scalpels, lasers, radioactive radiation and even poisons as effective tools, part of which is also language (words), understandable by peoples and itself is enough when treating information diseases (informatonoses) as necessary factor in the formation of social health along with importance of caring about the environment inhabited by people. Information has a significant impact on the lives and health of people already in the unique intrauterine human development stage, later in his upbringing, education, and finally, in regard to their own existence in society. Information (from Latin informare-to form or transform) means the act of informing and the action of giving the form to the being, thus realizing its natural state and development. The word 'being' denotes the entirety of everything that exists in the essential or/and existential sense, which can be identifiable both as the whole of the universe (cosmic spacetime) or as the quantum form of any it's part. Human beings got accustomed to using predominantly material imagination, and this situation created difficulties in understanding omnipresent information which works always bi-directionally and moves with unimaginable speed and for research purposes can be separated from the waves of light composed of photons. This phenomenon is commonly used in imaging the internal state of the body by means of nuclear magnetic resonance, where the electromagnetic field leads to technically resonant only atoms of selected elements, and their behavior can detect cancer and/or the place of its potential self-organization since 1980. Similarly, the whole person resonates to an even single word, if he understands it and wants to how much he can use the information he carries. The prolongation of invisible rays of information on the principle of just resonance creates an informational image of the original object (e.g. portrait) without the participation of its atoms.

### **Conflict of Interest**

None.

### Acknowledgement

None.

### **Post Sriptum**

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### Law of Informational Cosmic Spacetime: E =<sup>i</sup> mc<sup>2</sup>

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Combining mass and energy with information in the inseparable quantum equivalence of  $E^{=i} mc^2$  has opened a new informational medicine to help patients maintain truth, good health and beauty (Klimek R., Threefold Material-Informational-Energetic Reality:  $E^{=i} mc^2$ ,Biocosmology-neo-Aristotelism, Vol. 4(4), 2014: 408-409;

Klimek R., Information equation  $E^{-i}mc^2$  of Cosmic Beings - 20 Questions to Professor Rudolf Klimek: The President, World Information University; In the Style of Socratic Dialogue, Biocosmology-neo-Aristotelism,Vol.9(3&4),2019:218-229).

The essence and existence of information rays and patterns (fields) were proved by experimental documentation of human sight's nature, e.g., using the mirror at which everybody looks every day. A mirrored picture does not contain any single atom of the natural person because it appears thanks to resonating informational field ("pattern information"), wherein the information rays coming from a real object and from eyes (sight's rays) meet together and resonance due to having the identical value of their

unique character. The information rays and patterns have been used to explain many medical problems at the level of symptoms and body signs. Medicine now moved from the basic level of cellular nuclei towards the atomic nuclei with a thermodynamic interpretation according to the philosophy of cosmic being, summarized in the books: R. Klimek "Information Medicine-E=i mc<sup>2</sup>" (WIU, ISBN 978-83-923871-5-2, Cracow 2018 and BCnA 2019, 9, 369-492). Each cosmic part (being) consists of information, mass, and energy, whose quantum equivalence feedback  $E=^{i} mc^{2}$  is raised to the power of information (=<sup>i</sup>), which belongs to its cause while already also part of its effect with its environment. For example, each human cell threatened with the end of its metabolism may extend its life as a neoplasm cell only with increased information, mass, and energy dissipation in its environment. This dissipation becomes a local sign of carcinogenesis, which begins with an illness threatening the existence of the whole multi-cellular organism (R. Klimek. Psycho-neuro-cybernetic Conquest of Carcinogenesis and Cancers. Nova Biomedical, New York, 2015. Klimek R., Tadeusiewicz R., Gralek P. Virtual information links Matter and Energy in: Hisaki Hashi (ed) Philosophy of Nature in Cross-Cultural Dimensions. Dr Kovac Publ., Hamburg, 217: 197-217). The invisible informational rays of details on the principle of resonance create an image of the original object without the participation of its atoms. Already in the Middle Ages Polish-Turing scientist Vitelon (1220-1280) believed that in addition to light radiation, penetrating only through transparent structures - there is a specific type of optical radiation in the range of colors and shapes, which is called information radiation today. Information (from Latin informare - to form or transform) means the act of informing and the action of giving form to the being, thus realizing its natural state and development. My theory of being treats the properties and essence of the cosmos as an inseparable material, energetic and informational whole, understood in quantum approach by the equation  $E^{-i} mc^2$  also during interpersonal communication as an exchange of verbal, vocal, and non-verbal signals (symbols) using nuclear magnetic resonance, where the electromagnetic field leads to technically resonant only atoms of selected elements, and their behavior can detect cancer and the place of their potential self-organization since 1980. Similarly, the whole person resonates with even a single word if he understands it and wants to know how much he can use the information he carries. Information for research purposes can be separated from the waves of light composed of photons. Human beings got accustomed to using predominantly material imagination, which created difficulties in understanding omnipresent, transparent, colorless information, which has an attribute of polymorphism and may exist in many different forms yet remain itself, i.e., retains its identity even though it may be expressed differently. The human perception of the surrounding environment is identified in a visible material, and man concludes that something can be made from nothing. People utilize size, shape, look (color, smoothness, porosity), temperature, movement, and time as informational description of reality. The ability to recognize an emotional sensation, taste, or mirror reflection of the human body without parts of the body being in the mirror is an acceptable phenomenon. Each mirror picture emerges thanks to resonating informational field ("pattern information") in place

of the observer's localization, wherein the information rays coming from natural objects meet the sight rays from eyes, having the identical value of their unique waves. Despite their various forms, information remains the highest element of reality and inseparable from cosmic mass and energy in the categories of information feedback E=<sup>i</sup> mc<sup>2</sup>, where the electromagnetic field leads to technically resonant only atoms of selected elements. Mass is just a super concentrated form of energy, and both entities can be turned from one state to the other and back again owing to information rays and pattern fields (natural laws). Today scientists leveled the visible radiation with light, and the other rays from the things are still overlooked. Together with B. Jaskulska, we described a straightforward experiment proving the existence of informational flame (Figure 1). It is enough to put a flat candle at the bottom of a transparent glass cup, and light will get an actual image of flame (photo 1). After a short time, you can also see and photograph its informative second image as an informal graph, which does not even ignite the match (photos 2-4), quite the contrary to real flame (pictures 5,6). After sufficiently grading the candle on the mirror surface of the molten wax, the next informative image of the hot seal as an inverted information flame will also appear. It confirms the existence of information rays in two-way swirling longitudinal and transverse waves due to new mathematical description of being as  $E=^{i}mc^{2}$ .

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## Turin Shroud and the Law of Informational Spacetime: $E=^{i}mc^{2}$

### **Rudolf Klimek**

Each person resonates to every word, if he understands it and wants to know how much he can use the thinking and understanding speech done in completely different situations [1,2]. My philosophy of cosmic being promotes the information medicine so that everyone could understand the primary significance of own and social health along with importance of caring about the world inhabited by people. The existence of information rays was proved by experimental documentation of sight's nature as integrated part of reality which can be revealed by intellectual observations. Information rays pass through all informational spacetime (information pattern field) without obstacles and interact with matter and energy according to the quantum principle of equivalence E =imc2, e.g. natural laws of fertility and carcinogenesis links applied medicine with modern technology [3,4]. The most dangerous is the constantly increase of abnormal courses of pregnancy and birth also due to iatrogenic procedures by neglect of assistance in actual preterm labour before true individual term, or even worse - by preterm labour induction [5-8]. Also the most important Jesus' self-portrait as informgraph was created by the resonance of His informational rays with an information pattern of covering layer of burial cloths without affecting further layers of shroud. Humans view their own consciousness as the non-material motivation for their lives and actions according to their own values of social life and livelihood. A lot of information is passed on as true and correct, but not always is known who has created it and for what reason, or in what surroundings it manifests itself.

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# Current Developments Over BCA-Activities (first half of the 2020),

Occurred within the scientific life of Biocosmological Association A. Additional materials to the Socratic Dialogue previously published in the Biocosmology - neo-Aristotelism (2019. 9(3&4) pp. 218-229): Information equation  $E^{=i}mc^{2}$  of cosmic beings - 20 questions of Konstantin Khroutski to professor Rudolf Klimek, what has received the additional development.

B. New shape to the cover of the book on "Information Medicine" (published in the BCnA: 2019, 9, (3&4 370-495).

### Man's Self-Portrait Image on Turin Shroud

KK. Many millions of US dollar equivalents were spent preserving, studying and exhibiting the very burial sheet with a picture of the photographic negative of a man with many features paralleling the crucifixion. He had been taken down from the cross and placed in a tomb, wrapped up in a shroud. The Shroud showed details with a clearer, more natural appearance than the visually observed image on the burial cloth, because the crucified and resurrected image of Jesus Christ certainly is not the result of any external intelligent force to do so. According to John Paul II it is right to foster an awareness of the precious value of this image, which everyone sees and no one at present can explain. There is a perfect match between the bloodstains of the Shroud of Turin and the face cloth that had been on Jesus' head (Greek: sudarium), i.e. a supernatural (beyond the observable physical world) image of crucified man.

**RK.** The body image literally lies only on the very top exposed fibers of the weft thread, leaving the unexposed fibers of the threads of the weave unchanged. Furthermore, they show a uniform straw yellow coloration, which cannot be removed by rubbing or brushing with probe. Also the blood marks are not painted images. Therefore, the mechanism involved some type of radiation from the human body to a cloth surface draped over the body as collimated process producing an image, being inversely proportional to the distance between the body and draped cloth surface.

**KK.** So, the image is seen at points where there is no contact between the two surfaces (non-contact transfer mechanism). Also none of the known artistic copies show any of the forensic or image characteristics that typify the Stroud of Turin, whose nature for a long time still remains as mystery of invisible God or only as one of many published hypotheses, e.g. painting, acid pigmentation, medieval photography, dust-transfer technique, bas-relief, biochemical reaction, energy source, ultraviolet radiation or even burial ointments.

**RK.** Now fortunately the interpersonal communication has to be perceived in the categories of information feedback (E=<sup>i</sup>mc<sup>2</sup>) as an explanation of each mystery, including the origin of first known and the most important God's self-portrait image as informgraph appeared on Jesus' burial cloths! This image is the first known informgraph created as a result of resonance of information rays coming from Jesus with an information pattern formation, covering a layer of linen cloth adjacent to the body just 200nm thick (by the way - this is 5,000 times smaller than a dot at end of this sentence: .), and corresponding to the cell thickness of the wall of a single flax fiber and - what is very important - without affecting further layers of fabric! Today, even almost invisible changes can be transformed into three-dimensional shapes, photographed and reproduced. What's more, a few meters away from the canvas, there is a clear three-dimensional visualization of a lying bearded man. Finally, the shroud features images of as many as 28 flowers from species currently growing in the vicinity of Jerusalem. One of them can be collected only in the afternoon (between 3 p.m. and 4 p.m.) and based on this, some people claim to know when the body was placed in the grave within an hour's accuracy. On the other hand, based on the location of the traces of injuries on the canvas, the vertical position of the corpse was accurately determined for an hour and then for 5 minutes horizontally with the face up after being removed from the cross, as well as the origin of the spots from bleeding before and after death, most of which are plasma mixed with blood in 6:1 ratio.

**KK.** The Shroud is evidence of a great crime against a unique person, examined by the world's greatest authorities along with the establishment of a new field of knowledge called Synology, and covering a huge range of various specialists with the latest technology. For centuries, the mechanism of the creation of these images could not be explained until the basic views on the structure of the universe were changed, because when limited to its material interpretation, they simply did not take into account the basic information and the main component of the bio cosmos next to matter and energy.

**RK.** The purpose of all changes in Nature is to realize in each being the perfection of its information as an resonance feedback: input =<sup>i</sup> output, e.g. the eyes testifies the emotional human state in the categories of information feedback (E=<sup>i</sup> mc<sup>2</sup>) as an exchange of verbal, vocal and also non-verbal signals (symbols) in a given situational context. Sight, light, color and form themselves are not only the names of the original parts of the information spacetime [1], because etymologically "information" (from Latin informare - to form or transform) means both the act of informing and the action of giving the form to the being, thus realizing its natural state and a development. Similarly, the word 'being' denotes the entirety of everything that exists in the essential or/and existential sense, which can be identifiable both as the whole of the universe (bio cosmos) or as the quantum form of any part of it. Man for centuries did not take into account even the possibility of penetration through opaque objects newly rediscovered informational rays and patterns in the whole cosmic space-time whose information can be separated from the material-energy waves of light composed of photons. The visual

informative rays follow in every place of space and by resonance with analogous cosmic information patterns may create an inform graph of the original object [2,3]. For example, the phenomenon of resonance is commonly used in imaging the internal state of the body by means of nuclear magnetic resonance, where the electromagnetic waves lead to technically resonant only atoms of selected elements. In the same manner the whole person resonates to an even single word [4].

**KK.** Practically everyone can see own silhouette visible in the mirror. Visible picture does not contain any single atom of the human body, but man may record this rise or disappearance. Each mirror image emerges thanks to resonating informational field ("pattern information") in place of observer's localization, wherein the information rays coming from real object meet the sight rays from eyes, having the identical characteristics. The informational images, as the effect of resonance within local information pattern of the viewer or video place are not only electromagnetic waves, which can be fixed technically (e.g. photographed). Information rays is the bidirectional transparent event and therefore for man hidden, but existing in any object among its elements as not visible but a potential attribute.

**RK.** Every structure or process (being) in the universe contains in its cause information, which in the cause-effect feedback is a desired in the cause-effect feedback and immediately afterwards in created effect ( $E =^i mc^2$ ). Now after nuclear magnetic resonance imaging technology was introduced it is possible to view a three-dimensional image of a body cell's inner states. whose individual form also applies to a person's psychological and social life, e.g. in the form of informative disease (informatonosis). For instance, lies, telling untruths, or concealment destroy the motivated human behavior, whose quintessence are information rays and patterns! This illness can also be caused by abandoning the hitherto successful methods of monitoring the intra-uterine development of the child by the increased risk of a change of the physiological progress of the pregnancy into pathological obstetric incidents.

**KK.** Peoples are most effectively protected by living according to autoteological principles, which means that man acts in accordance with their own and socially acceptable ethical and moral values. For example, man instead of the exchange of products and services for money (e.g. coins) unfortunately began to use only information of their values, but money indirectly still is associated with social life through the existence and work of individuals.

**RK.** Medicine is one of those unique areas of human activity, in which not only its subject is at the same time the subject of interest, but mainly all the theoretical (cognitive) achievements are directly connected with the art of the possible protection of life and restoring people to health. The scope of the means for this purpose is huge, ranging from single wordsand/orgestures, and ending with the use of space equipment. In this perspective, medicine seems to be the queen of all sciences, which obliges doctors and patients to continuously track the progress of general knowledge and its technological use.

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## **Information Medicine - E=**<sup>i</sup> mc<sup>2</sup>

WIU, ISBN 978-83- 923871-5-2, Cracow 2018 and BCnA 2019, 9: 369-492.

### Preface

Medicine is the most important human domain dealing with theoretical principles how to protect or restore personal health and simultaneously applying them into practice, what is prescribed in the book "Psychoneurocybernetic conquest of carcinogenesis and cancers" (published by Nova Science Publishers, Inc. New York 2015), which content was the main subject of the electronic world congress "Biocosmology and Cancer" in Cracow, printed successfully in the electronic journal "Biocosmology and neo-Aristotelism" [vol. 7(1,2,3/4) 2017, vol.8(1,2): 1-262]. The monograph "Information Medicine" is based also on the video-document of this congress (*http://tiny.pl/gnzdk* - lectures Konstantin S. Khroutski, Rudolf Klimek, Karl Kratky, Xiaoting Liu, Josef Bremer, Peter Heusser, Walter Kofler, Joseph G. Schenker, Piotr Karocki), promoting goal to bridge gaps between the expansion of information and its implantation in medical practice.

The field of the congress compassed a wide spectrum of subject from medicine of health to the cosmic technology, which was inaugurateted by the collective articles of J. Bremer, K.S. Khroutski, R. Klimek, R. Tadeusiewucz and J.G. Schenker. Upon multi years own experiences the Authors presented the primary significance of human lifestyle in the formation and progress of social health along with importance of caring about the environment inhabited by people. They have summarized the public reactions to historic discovery of natural thermodynamic cause of cancer and infertility as well as the obstetrical prevention and psycho-neuroendocrine therapy of all diseases thus updated their earlier editions. This monograph should be of special interest to physicians, health-care givers and laymen, who cares about ethics in medicine, closely linked to certain human behaviors and procreation, e.g. now over 30% caesarean deliveries are performed simply due to maternal request, what incurred several risks none only for the baby, but also are related to appearance of cervical cancer of mother [K.S. Khroutski, R. Klimek Biocosmological definition of information and its naturalist causative significance. Biocosmology - neo-Aristotelism 2018, vol.8 (2): 204-262; J.G. Schenker et al. (eds.) Reproductive Medicine for Clinical Practice. Springer V. (2018)].

Infertility and cancers pertain to natural phenomena which, in contrast to common belief about their dramatic meaning, actually safeguard the existence of Homo sapiens. Infertility concerns about marum quam vulgo Perspectivam vocant Libri X, written in 1270-1273.

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20% of sexual partners in equal measure responsible for the lack of the desired offspring and can even concern a pair of healthy people, who exceptionally only in that relationship cannot have children. Both phenomena are linked by their inception from a single cell, every time selected from millions of gametes or from somatic cells endangered by the cessation of their metabolism, in which the whole multicellular organism is involved. Each cell grows in multicellular host organism, but the cardinal fact is the means by which cancer kills normal cells destroying healthy tissues, i.e. increasing dissipation of matter, information and energy in its environment. The essence of knowledge lies as much in a methodology of reaching the truth as in any view of what form that truth might ultimately take.

Each word is the informational part of world connected with individual person as man is quantum of human verbal world, which unifies people with transcendent beings, and that the Cosmos and the Earth are living entities of high complexity. Myth as a story about super-human beings of an earlier age existed in all preliterate societies to explain how universe came into existence and consists or to express the invisible power and invisible life? The observable universe is composed almost entirely of ordinary matter, but the whole Universe seems to be made of 4.9% atomic matter, 26.6% dark matter and 69.5% dark energy. The problem of matter and antimatter in the visible universe becomes now solved by the mass- information-energy equivalence equation that is  $E^{=i}$ mc<sup>2,</sup> since the amount of the released energy is usually proportional to the total mass of the collided matter and antimatter. The equal sign raised to the power of information (=<sup>i</sup>) defines the information of each being, because it belongs to its cause and is already part of its effect. The existence of bidirectional information rays and patterns coming from the body has been used to explain many medical problems, in which quantum effects are often hidden by random atomic movements. In extreme cold (close to absolute zero) quantum physics suddenly becomes visible when all moving particles cease. However, we do not "see" the words, but we recognize the person speaking in the mirror as visible effect of information rays. What's more, seemingly having no material component, the words can have the power to act if the person receiving them reacts to them with their behavior under the influence of the environment in accordance with the informational cosmic unity. Such expanding understanding of the psycho neuro thermodynamic pathogenesis of diseases has brought medicine to a new age of prevention and therapy directed against multiple characteristics of cancer cells to prevent cancer development and the elimination of new cancer

cells before they form clinically evident disease, which is generally considered fatal illness because its full symptoms can be seen only in the last period of an individual human life. But it is forgotten that only 5% of cancers exist in the absence of other diseases and in addition relate to the aging of the body what is important from the therapeutic point of view. The modern therapeutic aim is not only to destroy cancer cells without harming healthy tissues, but about strengthening the fight already in precancerous cells on the basis of the whole thermodynamic knowledge of material- information-al-energetic equivalency.

Time and space primarily belong to the informational reality as e.g. perceived by people love, fear, hatred, jealousy, self-awareness, etc. Each of these feelings has a beginning and its conditions, as all the events and their perceived causes and sources, e.g. the verbal aspect cannot be separated from the body language, covering gestures, facial expressions, body posture and the timbre of the voice, and even yawning and grunts. Man also for centuries was accustomed to light rays penetrating through only the transparent structures, and did not take into account the possibility of penetration even through opaque objects newly discovered in the twentieth century the radiation of neutrinos, and now gravitational and finally informational rays. New thermodynamic dissipative model of cancer has also proved to explain psychosis (e.g. Schizophrenia) as well as socio-economic crises in which money, like cancer for the life of individual cells-acts as an alternative end for the social life of man.

The more humans know reality of the world, the more they know themselves in their uniqueness, with the question of the meaning of things and of their very existence. These are the questions which we find in the writings of Confucius and Lao-Tze, in the sacred writings of Israel, Christianity, in the Veda and the Avesta and in the philosophical writings of Plato and Aristotle. Although times change and knowledge increases, it is possible to discern a core of philosophical insight within the history of thought as a whole. Certain fundamental moral norms are shared by all. Thus beyond different schools of thought, there exists a body of knowledge which may be judged a kind of spiritual heritage of humanity. Yet the positive results achieved must not obscure the fact that reason, in its one- sided concern to investigate human subjectivity, seems to have forgotten that men and women are always called to direct their steps towards a truth which transcends them.

Information medicine in every country must be considered as a social system comprised of individual people as living subsystems, co- creating the inner state of human verbal world. According to W. Korohoda the most important thing is to introduce to medicine very useful concepts of medical thermodynamics by informative recognition of morphological and energetic informational changes concerning all cellular form of life, leaving subcellular details to theoreticians, since they are not directly available for a physician in his practice. The cellular form of life is the dividing line separating applied medicine (practice) from theoretical medicine, at the same time being the basis for understanding etiopathogenesis of diseases due to modern technologies which armed physicians with a toolbox for monitoring human health and diagnosis of diseases at molecular level. Lately, the recognition of cancer as "Caesar of all diseases" has gained new importance when the biography of cervical cancer, originally known as mothers' cancer and/or premature sexual intercourse cancer, was linked with the termination of pregnancy via cesarean section performed without obstetric indications. Preventing the plague of cesarean sections serves as an example of oncological prevention. In treating patients, doctors use scalpels, lasers, radioactive radiation and poisons as effective tools, part of which is also language, made up of words, which are understandable by persons. The word itself is even enough when treating the informatonoses. Therefore, a special place is taken by heredity and the upbringing of a person, who, due to her/his free will, lives according to own autoteleological scale of values and rules of human social life. Information Medicine is dedicated not only to medical profession, but first of all to the public at large what can be seen from its contents and references as well as its video documentation in internet. P.T. Scientists who have contributed to this publication aiming that every person could understand the significance of health and the primary significance of own life style in the formation and progress of diseases.

Cracow-Zakopane Harenda 24.12.2018 Rudolf Klimek

## E=<sup>i</sup> mc<sup>2</sup> and M|E|I - New Cosmic Equivalences

University of Portsmouth physicist prof. M. Vopson has explored whether a new law of physics could support the much-debated theory that humans experience is actually an artificial reality, much like a computer simulation. His theory is popular among a number of well-known figures of information physics, which is fundamentally made up of bits of information, suggesting that information has mass and that all elementary particles - the smallest known building blocks of the universe - store information about themselves, similar to the way humans have DNA. It is based on the second law of thermodynamics, which establishes that entropy - a measure of disorder in an isolated system - can only increase or stay the same, but M. Vopson had established that the entropy in information systems remains constant or decreases as second law of information dynamics, or infodynamics, which could significantly impact genetics research and evolution theory. Lastly he suggested that information as the fundamental building block of the universe makes up almost a third of the universe, which he calls the mass-energy-information equivalence principle M/E/I. Unfortunately M.Vopson also wrote spuriously: "I am the first to propose the mechanism and physics by which information aquires mass" [The mass-energy-information equvalence principle. AIP Advances. 2019;9:0952061] without relation to our references: 1.Klimek R Threefold material-informational-energetic reality: E=<sup>i</sup> mc<sup>2</sup>, Biocosmology - Neo-Arisotelism 2014, 4(4), 405-415; 2. Klimek R. "Life, Cancer and Virtual Information," BCnA, 2016; 6(2): 255-272; 3. R Klimek (2015) Psychoneurocybernetic Conquest of Carcinogenesis and Cancers, Nova Biomedical; USA; 4. R Klimek Information Medicine- E=<sup>i</sup> mc<sup>2</sup> WIU, ISBN 978-83- 923871-5-2, Cracow 2018 and BCnA 2019, 9: 369-492; 5. Klimek R, Tadeusiewicz R, Gralek P (2017) Virtual information links Matter and Energy: E=<sup>i</sup>mc<sup>2</sup>, in: Hisaki Hashi (ed.) Philosophy of Nature in Cross-Cultural Dimensions. Dr Kovac Publ., Hamburg; 6. Klimek R (2016) Life, Cancer and Virtual Information, BCnA 6(2): 255 - 272.5; 7. Klimek R. (2024) E=<sup>i</sup> mc2- New Law of Informational Space-Time World. Am J. Biomed Sci & Res. 21(1)55-56; 8. Khroutski KS, R Klimek (2018) Biocosmological definition of information and its naturalist causal significance. BCnA 8(2): 204-262. So, together with profesor of biology W. Korohoda we wrote proposal of comments on two equivalences:  $E=^{i} mc^{2}$  and M|E|I, published within a new edition of this booklet after on receiving His email: "..You have very nice articles and your work is very much aligned to my interest and current work. Hence, I am inviting you to join the Information Physics Institute. This is an organization I launched for people like you and me, interested in information physics research. It is the only institute of this kind in the world."(2023-10-02).

### **1.** E=<sup>i</sup> mc<sup>2</sup> - New Law of Information World

Updated critical review of R. Klimek,s Prevention of Iatrogenic Cervical Cancer (E-ISBN:978-81-970671-3-6),DOI:10.9734/bpi/ anums/v8/7319B

Medicine is the most important human domain dealing with theoretical principles how to protect or restore personal health into practice, what was the main subject of the electronic world congress "Biocosmology and Cancer" in Cracow, printed successfully in the electronic journal "Biocosmology and neo-Aristotelism" [2017,7(1,2,3/4) and 8(1,2): 1-262] and based on the video-lectures (http://tiny.pl/gnzdk - K.S. Khroutski, R. Klimek, K. Kratky, X. Liu, J. Bremer, P. Heusser, W. Kofler, J. G. Schenker, P. Karocki), Upon multi years own experiences the authors have summarized the historic discovery of natural thermodynamic cause of cancer and infertility as well as the prevention and psycho-neuroendocrine therapy of all diseases [K.S. Khroutski, R. Klimek Biocosmological definition of information and its naturalist causative significance. Biocosmology - neo-Aristotelism 2018,8 (2): 204-262; Klimek R."Psychosomatic aspects of infertility" in: Schenker J.G et al.(eds) Reproductive Medicine for Clinicians. Spinger V. (2017)]. Information is transparent event and therefore for man hidden, but existing in any cosmic being as not visible but potential attribute. It means the act of informing and the action of giving the form to the being, which denotes the entirety of everything that exists in the essential or/and existential sense according to the law  $E = {}^{i}mc^{2}$ ; the equal sign (=) of the quantum feedback equivalence of information, mass and energy denotes mass and energy as quantity equal and at the same time the equation raised to the power of information (=<sup>i</sup>) defines the information's part of reality. Domination of information first of all turns the focus upon the meaning of the moral-ethic dimension of every person to live and work according to her/his autoteleological principle of compatibility between deeds and socially acceptable human values. For example cancers are self-organized from the cells of the patient, who did not provide the necessary conditions for own cellular metabolism. Carcinogenesis consists of natural occurring spontaneous cellular processes which may lead to self-organized dissipative structures of cancers what was first explained in 1977 [2-6]. All oncogenic factors can divide into sufficient or necessary to events for creating a dissipathogenic cellular status quo, which is an alternative of cellular or social death. Neoplasm cell is an effect of carcinogenesis, but not a causal point at which it begins its existence with information law E=<sup>i</sup> mc<sup>2</sup>, confimed also at: 1. R Klimek (2015) Psychoneurocybernetic Conquest of Carcinogenesis and Cancers, Nova Biomedical., USA; 2. R Klimek (2019) Information Medicine-E=<sup>i</sup> mc<sup>2</sup> WIU, ISBN 978-83-923871-5-2, Cracow 2018 and BCnA 2019, 9: 369-492; 3. Klimek R, Tadeusiewicz R, Gralek P (2017) Virtual information links Matter and Energy: E= <sup>i</sup> mc<sup>2</sup>, in: Hisaki Hashi (ed.) Philosophy of Nature in Cross-Cultural Dimensions. Dr Kovac Publ., Hamburg. 4. Klimek R (2016) Life, Cancer and Virtual Information, BCnA 6(2): 255 - 272; 5. Klimek R (2023) Law of informational cosmic spacetime: E= <sup>i</sup> mc<sup>2</sup> Adv Theo Comp Phy. 6(3),233-23; 6. Klimek R (2015) Prevention of Iatrogenic Cervical Cancer: A Critical Review, OJOG 5:775-783.

The universe is a self-realizing informational spacetime, whose quintessence is life, i.e. the informational interchange of mass and energy among directly or indirectly visible its particles. Information is transparent event and therefore for man hidden, but existing in any being among its elements as not visible but potential attribute. Practically everyone can see own silhouette visible in the mirror, which does not contain any single atom of the human body. Combining mass and energy with information in the inseparable quantum equivalence of E= <sup>i</sup> mc<sup>2</sup> has opened a new informational medicine to give doctors knowledge for their medical practice to help patients maintain truth, good health, and beauty. In the theory of cosmic existence, the steady growth of civilization and its associated diseases worldwide can be returned to the natural beginning of a man's individual life when the concept of matter will be replaced with information, to which energy and mass belong! Technological advances have enabled us to use modern tools to indicate the location and concentration of substances in selected parts of the human body. The Nuclear Magnetic Resonance Imaging method involves atom nuclei's excitation and analyzes how these nuclei recover to the original equilibrium to generate tomographic images in any plane for imagining diagnosis in modern medicine. The essence and existence of information rays and patterns (fields) may be proved by human sight's nature, e.g., using the mirror at which everybody looks every day. A mirrored picture does not contain any single atom of the natural person because it appears thanks to resonating informational field ("pattern information"), wherein the information rays coming from a real object and from eyes (sight's rays) meet together and resonance due to having the identical value of their unique character. Also, the mechanism of creation the silhouette of a crucified man based on a three-dimensional image placed on a heavy canvas could be understood in terms of quantum equivalence of information, mass, and energy E = <sup>i</sup> mc<sup>2</sup> (Klimek R. Socratic Dialogue: Man's self-portrait image on Turin Shroud. BCnA:10(1&2)2020;299-310). Similarly, R. Tadeusiewicz (Place and Role of Intelligent Systems in Computer Science. Computer Methods in Materials Science. 2010; 10:193-206) described cognitive systems as a new dimension of economic informatics. using mathematical linguistics. Language consists of several elements (words and grammatical rules) that can cause infinite possible meanings. For example, infertility and cancers pertain to natural phenomena in contrast to common belief about their dramatic meaning because they safeguard the existence and development of the genus Homo sapiens through the selective elimination of sick individuals least suited to the human species and environment. Based upon multi years own experiences in conservative, surgical, thermo- and radio-therapy of neoplasms the physicians have evidence that ACTH-depot therapy, oxytocinase monitoring of pregnancy and ultrasonography prognosis of expected birth date with accuracy of ±3 days instead ±3 weeks are at least three main medical interventions to reduce the rate of miscarriages, preterm births and in consequence of cervical cancers. Cancer cells are signals on the last human way to die and therefore man should try to treat the carcinogenesis instead to cure only the cancer diseases, because first cancer cell is foreboding of insufficiency of organism self-control to exist. In treating neoplasms doctors use scalpels, lasers, radioactive radiation and even poisons as effective tools, part of which is also language, made up of words, which are understandable by patients. A special place is taken by heredity and the upbringing of a person, who, due to his free will, lives according to his own auto-teleological values and rules of social life. Until the creation of the concept of generative entropy it was difficult to distinguish the necessary conditions from the sufficient cause of self-organization of neoplasms from the cells of the ill or only ageing patient. Modern conquest of carcinogenesis and cancers is the result of international uninterrupted cooperation since the our neurohormonal symposium entitled "Oxytocin and its analogues" in Cracow 1964. Many P.T. Scientists contributed to discovery of natural cause of cancer, mathematical interpretation of its cause as well as to obstetrical prevention of all human cancers and psycho-neuro-endocrine therapy of diseases. The dissipative nature of cancers has to be presented so that everyone could understand the neoplastic diseases and the primary significance of own life style in the formation and progress of cancer along with importance of caring about the environment inhabited by people.

### 2. Comments on the Klimek's Informational Law: E = <sup>i</sup> mc<sup>2</sup>

### Włodzimierz Korohoda\*

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### Opinion

A review on informational spacetime world and cancer by Rudolf Klimek is based on over 50 years of clinical experience of the Author as biochemist, gynecologist, obstetrician and endocrinologist, but not limited to practical clinical medicine. His broad interest in cancer and general problems related to medicine and philosophy of science resulted in numerous books and articles, some of them with me as co-author [ Klimek R (2023) Law of informational cosmic spacetime: E=<sup>i</sup>mc<sup>2</sup> Adv Theo Comp Phy. 6(3),233-23; Klimek R (2024) Prevention of Iatrogenic Cervical Cancer: A Critical Review-E-ISBN: 978-81-970671-3-6; Klimek R. (2024) E= i mc<sup>2</sup> - New Law of Informational Space - Time World. Am J. Biomed Sci & Res. 21(1)55-56]. Concepts of Klimek are considered by some scientists to be controversial. They are, however, very inspiring for scientists carrying on research related to cancer and human physiology. As cell biologist I am interested in cell biology including cancer cell biology. I would like to add here a few remarks to problems discussed in this review. Much of the basic information about neoplastic diseases is due to research conducted on normal and cancerous animal and human cells. Cancer is not only found in human organisms. Almost all vertebrates suffer from it: fishes, amphibians, reptiles, birds and mammals. Not only medicine doctors, but also biologists carry on research on its nature, both on whole animal organisms and on cells in cultures in vitro The neoplastic diseases occur in all organs and all types of cells. They can be induced by great number of various factors, such as viruses, free radicals, variety of organic and inorganic substances, X rays, or can appear spontaneously without any defined cause. For such a great diversity of cancer diseases and their inducers it is difficult to identify common features and to find effective treatment. Klimek already in 1977 suggested that the common feature of all cancers is the energy dissipation. He has been one of the first scientists who put forward the idea postulating that the information is besides mass and energy a third basal entity in universe. This concept is in last years propagated by increasing number of scientists; kosmologists philosophers and physicists. Klimek in his articles discusses the significance of preventing the development of cancer as a disease. Also Djamgoz and Plant [2014] in the book "Beat Cancer' concentrate attention on factors which prevent and slow down development of cancer.

The results of studies performed on cancers transplantable in experimental animals and tissue cultures of the cancer cells in the second half of XX century have greatly improved effectiveness diagnosis and treatment of cancer patients. Scientists got the possibility to follow and influence the development of cancer in animals. It was proved that single cell {as in leukemia L 12} or a few cells Walker or Ehrich ascites cancers, can cause development of cancers lethal for animals. Observations on cells in vitro permitted to identify many differences between cancer and normal cells. The time-lapse technique to follow cell behavior during neoplastic transformation helped to find features differing between cancer and normal cells. It became possible to identify numerous different factors which are able to cause the transformation of individual cells which introduced to animals develop lethal cancers. This activity was observed with viruses [polyoma], mutations of genes of tyrosine kinase, free radicals, irradiation with X rays, and many organic and inorganic substances, which appeared to be cancerogenic. Such results of experiments performed under controlled conditions help to avoid

in human surrounding the cancer inducing factors which induce inheritable changes this is neoplastic cell transformation. (i) Also factors which cause promotion in already transformed cells [their proliferation (ii) and cause the increased malignancy [progression] in cancer cell heterogenous populations in tumors (iii). These three stages in development of cancer are eases in animals were found to be dependent on different factors and require separate ways of recognition and prevention.

The research on cancer origin, treatment and prevention carried on in experimental laboratories are complementary to observations and studies under clinical conditions. Some of results of experimental studies became effectively introduced to clinical oncology, but many results still wait for decades after their description. Another insufficiently studies are the effects of enhancement of cancer development by factors which acting together are much more effective than when acting separately. Such enhancement is recognized by asbestos and cigarette smoking. The phenomenon is similar as more effective curation of cancer by the sets of cytostatic than when applied each separately. The effective prevention of cancer diseases strongly stressed by Klimek should be more generally examined in both induction and treatment of cancer diseases. Very early it was recognized that croton oil, which itself is not cancerogenic-is the factor which strongly induces cancer promotion and progression and hence development cancer diseases. Klimek in his review documents effects of obesity and papilloma viruses' infections on cancer diseases in woman. Prevention of cancer disease occurrence by elimination of factors which themselves do not induce cancer but influence its promotion and progression should be more intensively investigated.

It was observed already more than half hundred years ago that cell and animal nutrition have very significant influence upon the induction, promotion and progression of cancer diseases but now it is confirmed by clinical medicine. The significance of nutrition upon cancer occurrence by its prevention and acceleration in human populations remains to be more broadly studied and recognized. Already this problem consideration would require a separate extensive review of literature concerning experimental and clinical observations. Years ago it was shown that the changes in electric features of cell surfaces which accompany cell neoplastic transformation and malignancy. More recently the close correlation between electrophoretic mobility, electrokinetic potential and capacity to form metastases has been demonstrated. These results have not been applied to clinical diagnosis of cancer malignancy because the measurements with microscopic single cell electrophore-sis are time-consuming and required specialized equipment. Now such measurements can be accomplished in a few hours instead of months, but this demands co-operation of cell biology specialists with clinical oncology doctors. Rather seldom in lucky circumstances the discoveries from basic research of cells are relatively fast, in a few years, applied to clinics. Such fast usage of studies of intermediate filaments [11nm in diameter] which permitted to demonstrate cell and tissue type specific chemical nature of intermediate filaments [ research of W. Franke in Heidelberg and Mary Osborn

and K. Weber in Goetingen became confirmed by pathologists J. Stachura in Kraków and W. Domagała in Szczecin]. This permitted to discriminate secondary cancers from primary tumors in clinical patients and to identify the primary tumor localization.

Very inspiring for new studies in oncology are Klimek's concepts, presented earlier in his books and articles in which he discusses this concept of information as third cosmic being besides the matter and energy. This idea is now often discussed by cosmologists and physicists, and Klimek was one of the first who formulated this hypothesis. The examination of this theory in biology and oncology can be very important everywhere where the genetic information is investigated. This problems got basic significance for attempts to explain the phenomenon of life of organisms but also for analysis of molecular and cellular backgrounds of initiation, promotion and progression of cancer diseases. The new discoveries in cell and molecular biology cause the necessity of correction of many basic concepts, considered for decades as proved; First of all the results of epigenetic demonstrated the heritage of new form on the cellular level. Only partly true are the postulates that only mutations, this is changes in genome can lead to permanent new features in cells. The cell differentiation was found to be associated with selective gen regulation and not changes in genes. The permanent and heritable changes associated with the genes are not necessary {though often well documented] for initiation of neoplastic transformation in single cells. Also promotion and progression of malignancy in developing cancer can be associated with epigenetic and not necessary with genetic changes. Genetic information in living organisms is carried in nucleic acids {DNA and RNA] in genes and their structure but also in their arrangement and selective activation and inhibition. All cells in a multicellular organism in spite of their structural and functional versality are carriers of the same genetic information as zygote, the one cell from which they all origin. It requires investigation how epigenetic changes in cell features can be responsible for initiation, promotion, and progression of neoplastic diseases, similarly as permanent changes in structure and function of differentiating cells. The identification and elimination of factors which do not induce but effectively intensify promotion and progression of already transformed cells and cancer genesis should be more extensively studied to prevent spreading of cancer diseases.

In summary. The review by Klimek concerning literature on women's cancers prevention and treatment discusses problems common to almost all cancer diseases. He concentrates on effective prevention of cervical cancer not only by elimination of HPV virus¬es and obesity, but his comments postulate more broad research of promotion and progression factors besides metagenes and direct cancerogens. The research based on epigenetics and recognition of genetic information and its realization requires analysis of epi¬genetic heritable changes involved in progression of cancer malig-nancy and development of diseases. Taking into account these new aspects of oncology should inspire numerous new directions of examination and analysis of cancers origin and development. The review and these short comments show the need for more exten¬sive and broad discussions of biological aspects of cancers, based on results of information biology development in  $21^{\mbox{\tiny st}}$  century.



### Prof. Rudolf Klimek

Professor ord., Dr h.c.multi, born 1932 Cracow, Poland, emeritus ordinary professor of Jagiellonian University Cracow, president of World Information University, author of over 760 publications and 75 books: discovery of sulfur bacteria cytochrome S (co-author)-1954, introduction of hypothalamic hormones in medicine and synthetic ACTH in obstetrics-1960, enzymatic monitoring of pregnancy and delivery-1960, description of hypothalamic post-pregnancy syndrome and reactions of cervical vessels in precancerous and cancerous stages-1963, discovery of natural thermodynamic cause of cancers as dissipative structures-1977 and thermodynamic theory of health and disease-1978, introduction the nuclear magnetic resonance imaging in clnical practice-1980, immunotherapy of cervical intraepithelial neoplasia-1985, and the formulation of law equation  $E=^i mc^2$  of the threefold mass-information-energetic universe - 2014, mirror experiment of existence of bidirectional cosmic informational rays - 2017, solution of Turin Shroud mystery mechanism of man's image - 2018. Information has been equated to the quantum equivalence of mass and energy, expressed through the feedback equation  $E^{-i} mc^2$ . This approach provides a methodological foundation for understanding the meaning and role of information as a causal factor, encompassing both the static and dynamic development of the universe as an informational whole. Information in addition to its many excisting features has an atribute of polymorfism and may exist in many different forms yet retaining its identity even though it may be expressed in different ways.

Philosophy of cosmic being promotes the information medicine so that everyone could understand the primary significance of own and social human health along with importance of caring about the world inhabited by people. A lot of information is passed on as true and correct, but not always is known who has created it and for what reason. M.Vopson proposed the experiment capable of measuring the mass of digital information, which consists of an ultra accurate mass measurement of a data storage device when all its memory bits are in fully erased state and then followed by the operation of recording digital data on all of its memory bits until is at full capacity. He argued that information is a distinct form of matter, or the fifth state, along the other four observable solid, liquid, gas, and plasma states of matter. He expected that his work will stimulate further theoretical and experimental research, bringing the scientific community one-step closer to understanding the abstract nature of matter, dark matter, energy and information in the Universe.