Academy of Science of Russia S. Peterburg 2-6 July, 2012

Preliminary data on some development on biophysics and Medicine

Vincenzo I. Valenzi

¹Swiss Research Institute on Psychic Energy, ISREP/LiUM, Bellinzona <u>www.lium.ch</u> CIFA Centre Internationale for the etude of f actor of Ambiance <u>www.cifafondation.org</u> CENTRO STUDI DI BIOMETEOROLOGIA ONLUS ROMA

More than 100000 Americans die every year

Lazarou et al. *JAMA* 1998; 279:1200-1205 www.lef.org/protocols/prtcls.../t-prtcl-165.html-

Drug side effects are the fourth leading cause of death in the United States. More than 100000 Americans die every year from prescription drug side effects. Indeed, in the 1998 JAMA study cited above, 76.2% of all side effects were ...

SE SPARTA (AMERICA) PIANGE, ATENE (EUROPA) NON RIDE

ABOUT THE MECHANISM OF ACTION OF DRUG

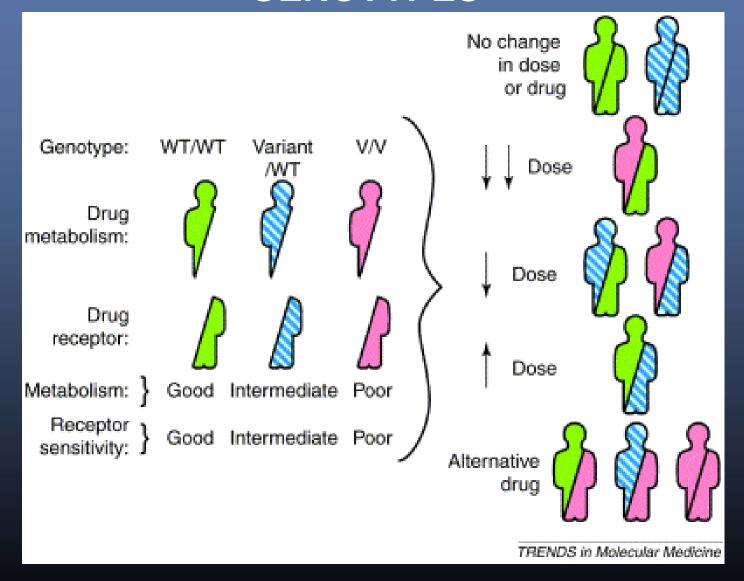
The magic bullet.

A fundamental progress for understanding the relationship between a drug and the cell components has been achieved when the concept of "drug receptor" has been formulated. Paul Ehrlich (1845-1915) deserves the merit of having the insight that the effect of drugs could be understood against as the consequence of their chemical interaction with the tissue. To better explain this concept he proposed the suggestive definition of a <<magic bullet>> able to hit its specific target (the "receptor") in the crowd of chemical components of the living organism.

Actual problems and controversial on drug intolerance

However the "magic bullet" is not always able to get the target. Frequently, in spite of the ceaseless progresses of pharmacology, adverse and intolerance against the drugs may occur and produce situations where a careful evaluation of the risk/benefit ratio of the use of the drug is mandatory. A fraction as the 70/75% of the disease induced by drugs cannot admit any explanation in terms of the usual immunological reactions, although those symptoms were induced by drugs which were well known allergens. In these cases the disease has been christened as "pseudo-allergy" or drug intolerance.. for it some solutions: Pharmacogenomics or Pharmacoelectrodynamics

TREATMENT MODIFICATIONS AND PATIENT GENOTYPES



A QUANTUM-CHEMISTRY PHARMACOELECTRODYNAMICS INTERACTION FOR DRUG INTOLERANCE?

- In a nutshell, the appearance of electric voltage on the skin suggested that an electromagnetic (e.m.) and may be also e quantum mechanism could underlie these strange pseudo-allergies;
- since these symptoms were the effects of drug, the intriguing possibility arose that the molecules of drugs could extrinsecate an quantum and e.m. action apart the well know chemical action
- So the paradigm :
- It's the dose that make the drug
- Seems not be so universally and general

The role of water as ferroelectric system in biology

- An increasing number of data shows (also in many works presented in this congress) that water in liquid state is endowed with very peculiar properties and undergoes structures which may retain in a stable manner some conformation's information.
- Physicists (and also Preparata, Del Giudice, Trukhan, Zhadin) elaborated several theories about these structures, which deserve experimental checking.
- Anyway in the last century, researchers like Giorgio
 Piccardi, John Eccles, Jacques Benveniste have come to
 similar conclusions based on bio-quantum-chemistry
 experiments.

HYPOTHETICAL MECHANISM OF BIOLOGICAL EFFECTS AT VERY LOW CONCENTRATION . OSCILLATING FIELDS AND INTERMOLECULAR COMMUNICATION PRIVATE NOTE 1991 J.BENVENISTE

PKIVAIE NUIE 1991 J.BENVENISIE

- If the active molecules are absent (or best present in such low number that they cannot induce a chemical response), we have to admit that the specific effect which we detect is of non-molecular origin.
- The physical basis of this phenomenon is at present unknown.

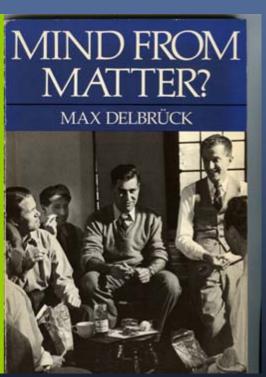
Molecular signalling Jacques Benveniste 1991

- The question as to the nature of the intimate mechanism (s) of molecular signalling, which are fundamental to all of biology, is not only without response, but has not even posed.
- We propose that the essential molecular function: recognition (at distance?), interaction activation, secondary and tertiary structure, and conformational change (triggering, directing, stopping of movement in the new conformation....) are in fact, determinate by electromagnetic mechanism.

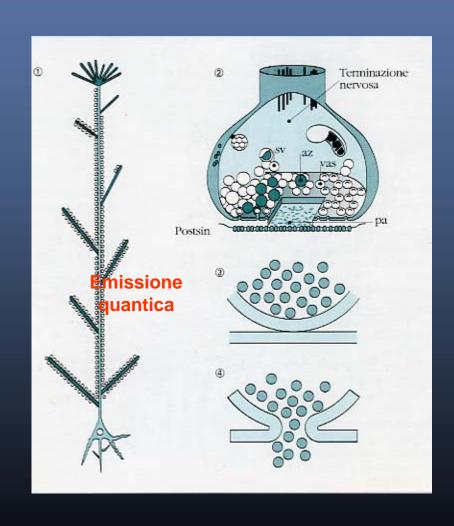
Vacuum and Coherence in Nature

Webnar, 25 July 2007

Il dolore:
dalla materia
alla mente.
L'ipotesi quantistica
di John Eccles e la
teoria della
coerenza di
Giuliano Preparata

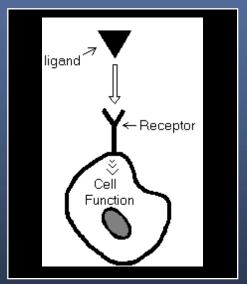


"The psycone coordinates exocitoses by means of quantum probability fields" Sir John Eccles



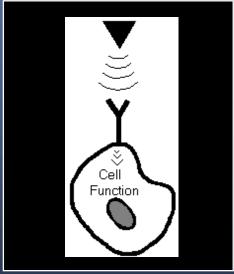
Molecular signaling

The Current Theory: "structural matching"



The 3D structure of ligand matches that of the receptor. Physical proximity induces receptor conformational changes which in turn triggers the cascade of events prompting cell function.

The Benveniste Theory: "electromagnetic signals"



Proximity favors resonance of ligand-receptor specific EM signals. Resonance serves <u>as an</u> <u>iperconductive mechanism</u> for activation changes which occur at all steps of the cascade inducing cell function.

Resonance Peak in the Current through the Solution (Zhadin Effect)

ZHADIN M.N., NOVIKOV V.V., BARNESF.S. PERGOLA N.F. (1998) Combined action of static and alternating magnetic fields on ionic current in aqueous glutamic acid solutions.

Bioelectromagnetics 19: 41-45.

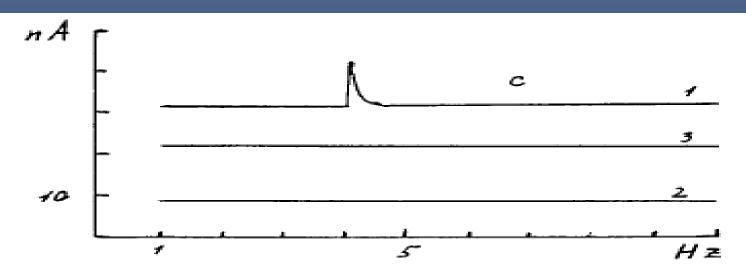


Fig. 2. Ionic current through aqueous glutamic acid (Glu) solution as a function of alternating magnetic field frequency at different values of static magnetic field. The alternating magnetic field frequency in Hz is plotted on the horizontal axis; the ionic current in nA is plotted on the vertical axis. The alternating field amplitude is 0.025 μ T; a: static magnetic field B_o = 20 μ T; b: B_o = 30 μ T; c: B_o = 40 μ T; 1: Glu solution with pH = 2.85; 2: Glu solution with pH = 3.2; 3: water with pH 2.85.

International Journal of QUANTUM CHEMISTRY

Abstract

Benveniste had observed that highly dilute (and even in the absence of physical molecules) biological agents still triggered relevant biological systems. Some of these experiments were reproduced in three other laboratories who cosigned the article, (Davenas et al., *Nature* 1988, 333, 816). Further works, [(*Medical* Hypotheses 2000, 54, 33), (Rivista di Biologia/Biology Forum 97, 2004, 169)], showed that molecular activity in more than 50 biochemical systems and even in bacteria could be induced by electromagnetic signals transferred through water solutes. The sources of the electromagnetic signals were recordings of specific biological activities. These results suggest that electromagnetic transmission of biochemical information can be stored in the electric dipole moments of water in close analogy to the manner in which magnetic moments store information on a computer disk. The electromagnetic transmission would enable in vivo transmissions of the specific molecular information between two functional biomolecules. In the present work, the physical nature of such biological information storage and retrieval in ordered quantum electromagnetic domains of water will be discussed. © 2009 Wiley Periodicals, Inc. Int J Quantum Chem, 2010 http://academic.research.microsoft.com/Publication/22164250/the-biophysicalbasis-of-benveniste-experiments-entropy-structure-and-information-in-water

A. Widom Y.N. Srivastava, V.I. Valenzi

The Biophysical Basis of Water Memory: Entropy, Structure and Information in Water"

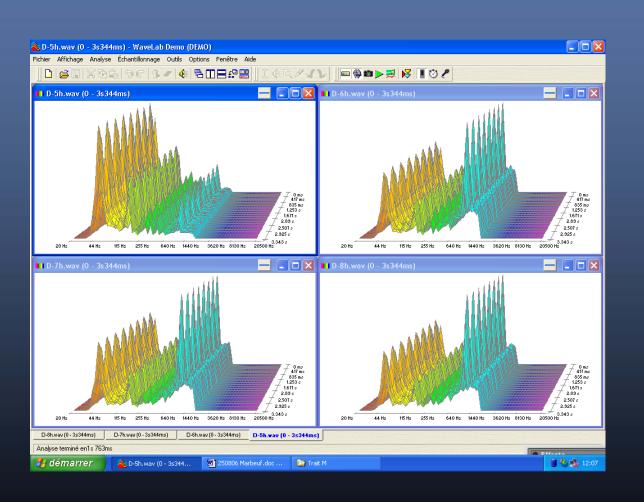
International Journal of Quantum Chemistry (Wiley and Sons), Published on line.May 19, 2009[DOI: 22140]

Conclusion: We have only briefly indicated how electric and magnetic dipole moments carry entropy and thereby information in aqueous electrolytes. Storing information allows biological properties to depend on past histories of electric and magnetic dipole moments within the water solvent. Since electromagnetic waves from sources far removed from the information storage can nevertheless have effects on such memory, it is clear that biological wireless connection may exist. Such notions as information memory capacity and biological programs are quite common in describing polymer genome analysis. It should not be surprising that such concepts should be present in other types of biochemical systems. For example, the communication between human memory residing in the human brain and the environment which evokes such memory relies on information carried by nerve cells whose electrical signals critically depend on ionic conduction. Although we are far from working out the relevant ionic electrical connections in life forms more complicated than (say) a lobster, it is very clear that electrolytic ionic information (i.e. entropy) plays an important role in the resulting electric circuitry.

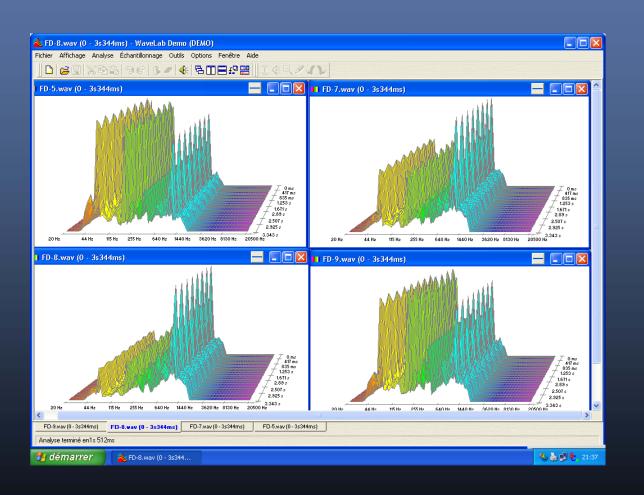
Electromagnetic Signals Are Produced by Aqueous Nanostructures derived from Bacterial DNA Sequences Luc MONTAGNIER1, Jamal AÄISSA1 St¶ephane FERRIS1
Jean-Luc MONTAGNIER1, Claude LAVALL¶EE1

- Abstract: A novel property of DNA is described: the capacity of some bacterial DNA sequences to induce
- electromagnetic waves at high aqueous dilutions. It appears to be a resonance phenomenon triggered by the
- ambient electromagnetic background of very low frequency waves. The genomic DNA of most pathogenic bacteria
- contains sequences which are able to generate such signals. This opens the way to the development of highly
- sensitive detection system for chronic bacterial infections in human and animal diseases.
- Key words: DNA, electromagnetic signals, bacteria.

Plasma from patient with Alzheimer Disease EMS (+) between 10-6 and 10-11



The case of HIV/AIDS (in collaboration with CIRBA, Ivory Coast) African patients, generally infected with the A/G HIV1 subtype (in vitro : CEM cells infected with HIV1 Lai)



The role of Molecular Signalling from bacteria nano fragment of DNA

While the signal from blood could be an clear instrumental data (virus of herpes is for example, a well know part of Human DNA in people with herpes infection), less clear appear the etiopathogenetic mechanism whit which very low em field inside cell are able to produce disorder and illness.

New scientific vision of chronic diseases

 Today something go to be more clear also thanks to work of Luc Montagnier et coll. from an experimental side and Allan Widom et coll. from theoretical side. Montagnier, continuing Benveniste research on bacteria signal from blood, show how nano-fragment of DNA of bacteria and virus emitting specific electromagnetic signal that could be used for diagnostic also of some chronic disease as Alzheimer, Rheumatoid Arthritis, AIDS, etc.

New scientific basis for diagnostics and therapy

 This discovery seems explain some strange observation from bio resonance, its diagnostic activity, also in absence of traditional detection of virus or bacteria, and more the therapeutic effect of so-call inversion of frequency that seems able to care some viral and bacterial disease and also some chronically disease as SLA, RA, etc reported in some medical experiences of bioresonance therapy in the last 40 years

The role of Molecular Signalling from bacteria nano fragment of DNA

While the signal from blood could be an clear instrumental data (virus of herpes is for example, a well know part of Human DNA in people with herpes infection), less clear appear the etiopathogenetic mechanism whit which very low em field inside cell are able to produce disorder and illness.

 Also don't easy is understand how very low em field are able to induce therapeutic effects...

Anti-inflammatory effects of low-intensity extremely high-frequency electromagnetic radiation: frequency and power dependence

Gapeyev AB, Mikhailik EN, Chemeris NK

■ Bioelectromagnetics. 2008

Apr;29(3):197-206.

ABSTRACT

Using a model of acute zymosan-induced footpad edema in NMRI mice, the frequency and power dependence of anti-inflammatory effect of low-intensity extremely high-frequency electromagnetic radiation (EHF EMR) was found. Single whole-body exposure of animals to EHF EMR at the intensity of 0.1 mW/cm(2) for 20 min at 1 h after zymosan injection reduced both the footpad edema and local hyperthermia on average by 20% at the frequencies of 42.2, 51.8, and 65 GHz. Some other frequencies from the frequency range of 37.5-70 GHz were less effective or not effective at all. At fixed frequency of 42.2 GHz and intensity of 0.1 mW/cm(2), the effect had bell-shaped dependence on exposure duration with a maximum at 20-40 min. Reduction of intensity to 0.01 mW/cm(2) resulted in a change of the effect dependence on exposure duration to a linear one. Combined action of cyclooxygenase inhibitor sodium diclofenac and EHF EMR exposure caused a partial additive effect of decrease in footpad edema. Combined action of antihistamine clemastine and EHF EMR exposure caused a dose-dependent abolishment of the antiinflammatory effect of EHF EMR. The results obtained suggest that arachidonic acid metabolites and histamine are involved in realization of anti-inflammatory effects of low-intensity EHF EMR.

The Sensitive Bioelectrical System in Humans to em field

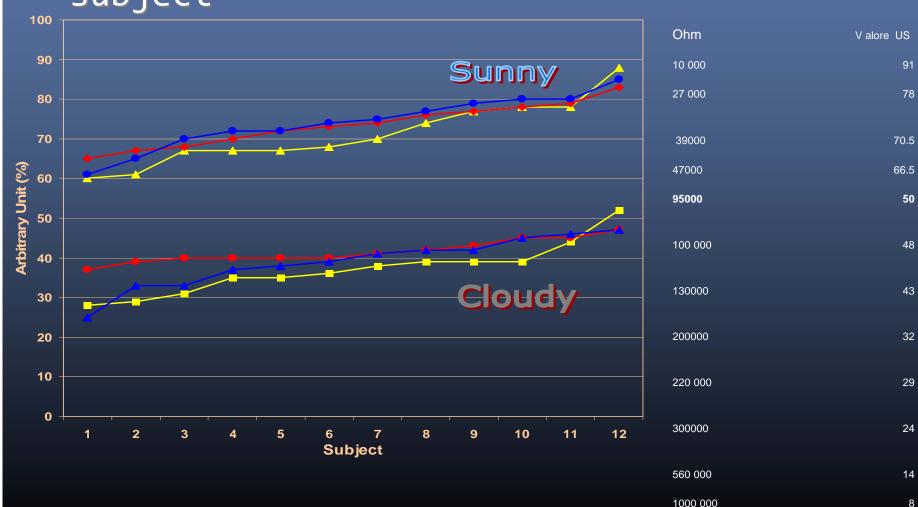
A possible model could be represented by SEP (Skin Electric Parameters) that measure the Ohm resistance in the chinese meridian see as circuits to variable resistance. On these circuits, em signal extern and intern to body, or quantum field, could be able to induce relevant modification of electric resistance as observed in some research on Meteoropathies in Spa Medicine, in pharmacoeletrodynamics ecc. It seems indeed that the Ohm Law and em signal and quantum field could have a key role in general phisiopathology

The substrate for em and quantum signal seems to be the meridians The Ohm Law in Therapy and Biology

- Measures on meridians highlighted in subjects with meteoropathies and various pathologies, that the electrical resistance increased in physical electric circuits with a medium of about 43 scale unites of SEP corresponding to 130,000 Ω
- "Normal" level of resistance is 95.000 Ohm =50 us
- After the administration of a coherent therapy, we saw a resistance fall in medium at 39,000 Ω (70 us), with an improvement of bioelectric performance due to an increase of physical electric currents, in accordance with Ohm's law, I= V/R
- Power in the biological system vary with W=V×I, with functional correlations (performance status, immunological status, muscle power, pain, inflammation, allergy, dyspnea, etc.)

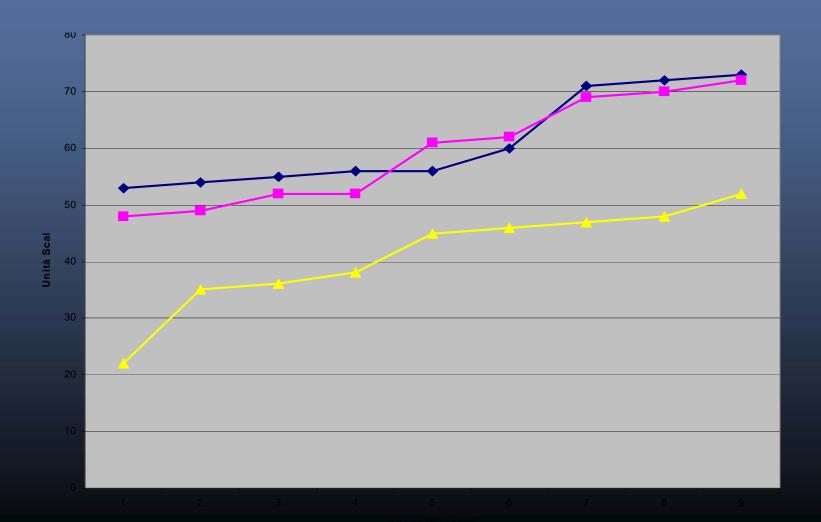
Health Subjects

Homogeneity of 3 groups of health subject

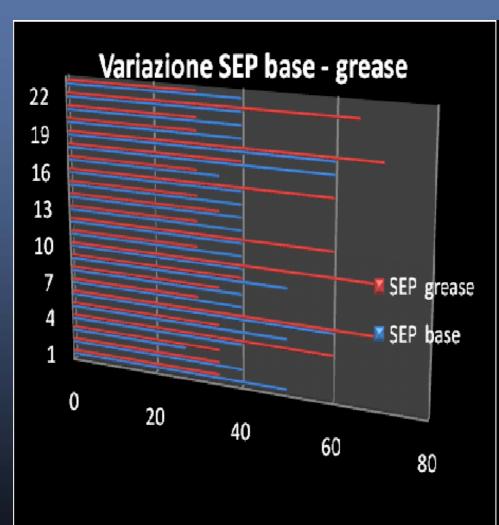


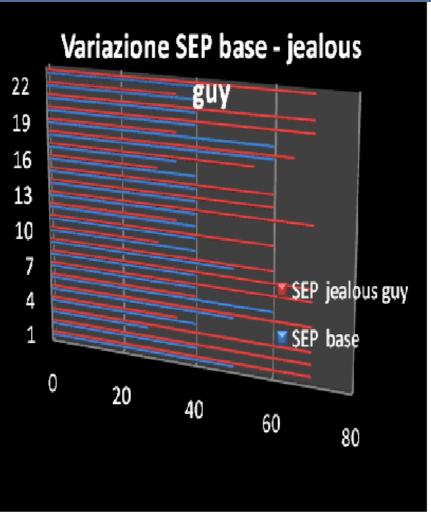
Effects on the conductivity by magnetic field of cell phone antenna 10 V/mt - 900 GHz on seven men exposed in amagnetic room

V.I.Valenzi, S. Grimaldi, G. Quartieri, G. E. Gigante; G. Mileto, G. Monaco: Osservazioni sulle variazioni bioelettriche nell'uomo indotte da campi elettromagnetici in camera amagnetica. Ricerca Aerosp. Pag. 33-38,
Anno XXI- N. 1. 2005

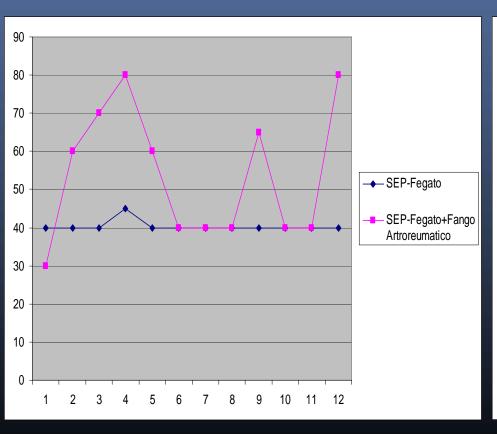


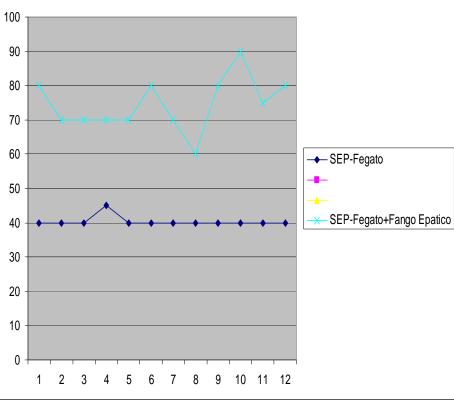
BEATLES AND J. TRAVOLTA SEP EFFECTS





Mud therapy and rheumatic meteoropathic pain: muds are not all the same!



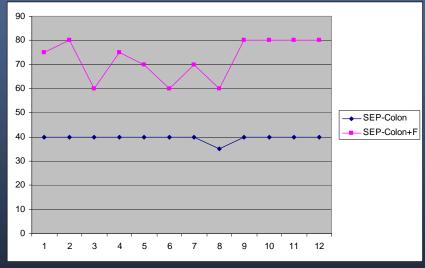


SEP variations on subjects with chronic constipation in hydropinic treatment with molecular signaling of water

A. Pisani, V.I. Valenzi, M.C. Lucchetta, M. Grassi, A. Serio, P. Avino, M.V. Russo, A. Fraioli

VII International Conference "Cosmos and Biosphere", 1-6 October 2007, Sudak, Crimea

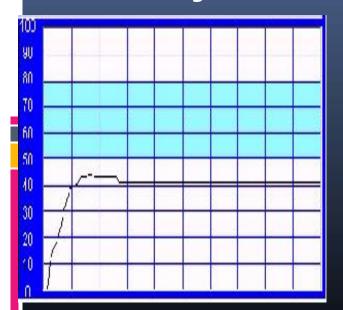




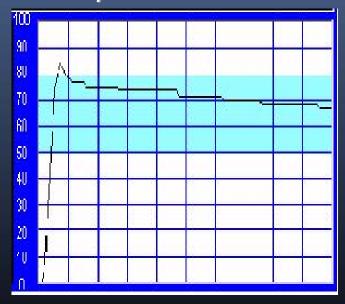
Skin Electric Parameters and molecular signaling of drug DRUG EFFICACY AND/OR INTOLERANCE IN METEOROPATHIC OSTEOARTICULAR DISEASES WITH 8 FANS TESTED http://web.tiscali.it/numedi/arc2002/0902/12.html

V.I. Valenzi and M.L.Roseghini

Without drugs



After Nimesulide 1,5 cm max far from body



Potential Vector

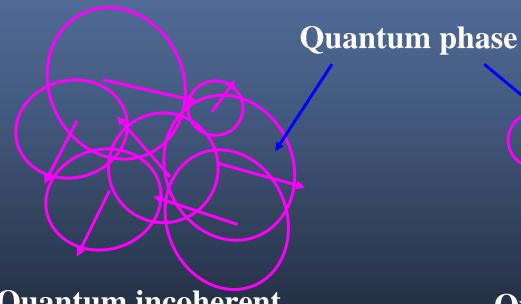
The Potential Vector extends to a nearby large area, without transporting energy but just information, exerting a "fine influence", we could say "informatica", that alters the phase of the present coherent systems.

Giuliano Preparata & Emilio Del Giudice (Scienza e Conoscenza, 17/2006)

Quantum Coherent Interactions

Luca Gamberale
Pirelli Labs - Materials Innovation Advanced Research
(Milano, Italy)

N scatters



Quantum incoherent Cross section like N

Quantum coherent Cross section like N²

N~10²³

Vector Potential in Puthof's Patent 5845220

- "with advent of quantum theory, however, the traditional picture change. In the prior art literature, the (vector and Scalar potentials A and Φ) formalism has emerged as more fundamental because it predicts certain quantum interferer effects that have been observed and are not apparent from the (E, B) approach. This difference was first set forth in an unequivocal way in a seminal 1959 paper by Ahranov and Bohm, entitled Significance of electromagnetic potential in the quantum theory" Physical Review 1959 and 1961.
- In these papers it is shown that in certain two-leg electron-interferometer configuration in which the potential A and φ are established in a region of space, but B and E are absent. It is nonetheless possible for the potentials A and φ induce changes in electron quantum interference patterns.
- That is, electron that are in an electromagnetic field-free region and therefore do not encounter an electric or magnetic field are nonetheless acted upon by the presence of the A and or the **p**otentials.

Vector Potential in Puthof's Patent(2)

- Such an effect is now referred to broadly as a Ahranov-Bohm effect, and device have been built which demonstrate this effect in laboratory. For a recent overview, see, Y Imry and R. A. Webb," Quantum interference and the Ahranov-Bohm effect" Scientific American" 260 (April 1989).
- A second quantum interference effect demonstrate the independent reality of the (A, Φ) potentials in the absence of the (E,B) fields (and one which is significant for the technology disclosed by Puthof) is a single-leg electron interferometer effect know as the Josephson effect; see R.P. Feynman,. The Feynman Lectures on Physics 1965) The Josephson effect is based on the fact that the current density J through a Josephson Junction (which consist of two superconductors separate by a thin insulator) is determined by the magnitude of the potential A and Φ, independent of whether E or B are present.

INFLUENCE OF A VECTOR POTENTIAL ON A HIV REPRODUCTION IN T-LYMPHOCYTES IN VITRO

Pokidysheva L.N., Trukhan E.M., Titova I.V., Miller G.G.

Abstract

- The examination of a field free vector potential (VP) influence on HIV reproduction in a T-lymphocytes in vitro is presented. Two variants of the tissue culture cells, infected by HIV were used: a human peripheral blood Tlymphocytes (PBL) and a human T-lymphoblastoid cell line MT4. The cultures were exposed to a VP during 0,5 and 1,0 hour before or after they were infected by 100 units per cell of a lymphotropic strain of HIV(R5/LAV-1).
- Some effect of a VP on the mentioned above biological systems was revealed. Some distinctions of cell proliferation index (PI) between the PBL and MT4 were found. Slight increase of PI in PBL may be conditioned by wide presentation of signal Toll-2 (IL-1) receptors on the cell surface, which induce the expression of early dividing genes, whereas they are very rare on the surface of MT4 cell line. However the viral pathogenicity was higher in aMT4 cell line. The phenomena required subsequent evaluation.
- Conference Yalta-Gourzuf 6 june 2008

Pharmacoclinical implication

Personalized Therapy??

WE CAN OVERCOME DRUG RESISTANCE EASILY WITH THE CHOOSE OF DRUG BASED ON IPERCONDUTTIVE EFFECT MEASURABLE DIRECTLY WITH

- OHM DEVICE
- KINESIOLOGY
- OTHER SYSTEM

BY THE WAY MEDICAL DOCTOR CAN CHECK THERAPY AND MANAGE RESISTANCE OF FANS, CORTISONIC, ANTISTAMINC, ANTIPERTISIVE DRUG ECC.

ANTIBIOTIC RESISTANCE NEED A SPECIFIC STUDY TO COMPARE ANTIBIOGRAM AND SEP (OR BAP) CHOOSE

Controlled test doubble blind

In the last study in preparation of double blind trial, we have observed in twenty allergic patients, that the association of an antihistaminic drug (loratidine, mizolastine, cetirizine ecc) whit a cortisonic drug (betametasone, mometasone, deflazacort), driven from the SEP (Skin Electrical Parameter), give an 90/% of regression of the symptoms allergic (rhinitis, ecc). This results are obtained from patients, without intake of drug, but with the utilise of the drug for electrodynamics action, with application of the drug external to the body. The development of intolerance to the drug, seems strongly correlated to the fall of the conductance in the body. The substitution of drugs with the improvements the conductance, is correlate to immediate regression of intolerance and allergic symptoms.

An international Project to manage the drug resistance?

- Proposal
- In the frame of Rome Conference on "Il mondo Cartesiano e il Mondo Olistico"10 /06/2011
- After disscussion on antibiotic resistance and drug side effects we decide to activate an international and interdisciplinary group on DRUG RESISTANCE, ELECTROMAGNETIC FIELD and new quantum approach to drug therapy finalized to
- improve the ratio Risk/ a Benefits and Drug Terapy for a Driven Therapy

RISK/BENEFITS RATIO IMPROVED

• WE HAVE THE CHANCE TO RELANCE THE USE OF GREAT DRUG AS CORTISONIC, FANS, ANTIBIOTICS THAT TODAY IN THE TOTAL PARADOX ARE NOT FULL USED WHEN THEY NEED MORE, FOR EXAMPLE AFTER DENTAL SURGERY, IN GREAT INFECTION AND INFLAMMATION ECC.

COST/BENEFITS RATIO IMPROVED

- THIS IS A REAL PROBLEM:
- WE CAN LOOK FOR A PERSONALIZED THERAPY THAT CAN USE ALSO THE SIGNALLING OF DRUG IN SOME CASES AND SOME STATES OF PATHOLOGIES?
- WE CAN SAVE MONEY?
- WE CAN DERANGE TRADITIONAL BUSINESS?
- MAY BE YES. WE MUST FOR US, FOR OUR FAMILY, FOR OUR PATIENT, FOR OUR COUNTRY, FOR OUR SCIENTIFIC MISSION.
- MAY BE NOT.. IT COULD BE NOT SENSE...??

Une prise de position de la Commission de spécialité de la Société suisse d'allergologieet d'immunologie (SSAI) sur la biorésonance et les appareils d'électroacupuncture utilisés dans le diagnostic et la thérapie d'états soidisant allergiques

La biorésonance: un non-sens diagnostique et thérapeutique

Conclusion Bien que les diverses prises de positions provenant des sociétés d'allergologie mettent unanimementen garde contre l'usage de procédés de biorésonance et d'électro-acupunctur e, des maisons commerciales et des médecins (ou thérapeutes non médecins) persistent à pratiquer detelles méthodes. De plus, plusieurs caisses-maladie se déclarent prêtes à prendre leurs coûts en charge dans le cadre d'assurances complémentaires. Des patients crédules se retrouveront ainsi suivre des diètes ou des procédés «d'effacement» aberrants, croyant ainsi effacer une allergie quin'existe pas.

PRELIMINARY AGREEMENT

IN THE FRAME OF FLORENCE CONFERENCE

ON INTERACTION OF WEAR ELECTROMAGNETIC FIELDS WITH LIVING MATTER 18/02/2011.

AFTER DISCUSSION ON ANTIBIOTIC RESISTANCE AND DRUG SIDE EFFECT PRESENTED BY ALESSANDRO BARTOLONI, WE DECIDE TO ACTIVATE AN INTERNATIONAL AND INTERDISCIPLINARY GROUP OF WORK ON DRUG RESISTANCE ELECTROMAGNETIC FIELD AND NEW QUANTUM APPROACH TO DRUG THERAPY FINALIZED TO IMPROVE THE RATIO RISK/BENEFITS AND DRUG THERAPY.

FLORENCE, 18 FEBRUARY 2011

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- A. Pisani V. I. Valenzi , M.C. Lucchetta, M. Grassi, A. Serio P. Avino, M. Russo, A. Fraioli SEP variations on subjects with chronic constipation in idropinic treatment. VII Intern. Conference "COSMOS AND BIOSPHERE":1-6/X 2007Sudak Crimea- Benveniste Award
- Allan Widom, Yogi Srivastava, Vincenzo Valenzi: The Biophysical Basis of Water Memory. International Journal of Quantum Chemistry (Wiley and Sons), Published on line May 19, 2009[DOI: 22140];

Debite on Coherence and quantum chemistry

- >>> <u>http://www.vimeo.com/10883097</u>
 - >>> Colloquio con LARISSA BRIZHIK Istituto di Fisica teorica di Kiev

 - >>> >> http://www.vimeo.com/10761564">>> Colloquio con Vladimir Voeikov Chimico Organico Lomonosov University Mosca
- >>> <u>www.colombre.it/montagnier</u>
 - >>> Colloquio con Luc Montagner
 - >>> http://vimeo.com/11108801
 - >>> Colloquio con Settimio Grimaldi CNR Involves Francesco Bordino. Roma