# PERSPECTIVES OF PRACTICAL APPLICATION OF ELECTRONIC TRANSMISSION OF MEDICAL DRUGS: THE ROLE OF WATER.

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Back in 2009 radiophysicist Dr. Greenstein and Dr. Shraibman, MD, suggested

their technology of transmission of "informational images" of medical drugs to remote locations using conventional electronic networks



**DST-foundation** for 3 years already uses and develops this technology, organizes clinical trials of action upon the patients of water "charged" with specific "informational images" of medical drugs, promotes scientific research of this phenomenon.

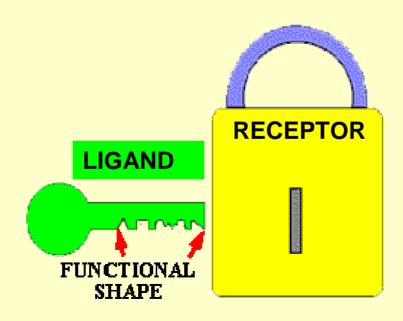
However, many scientists and MDs doubt if the very idea of transfer of biological activity of substances using electronic networks contradicts the laws of physics and biology.



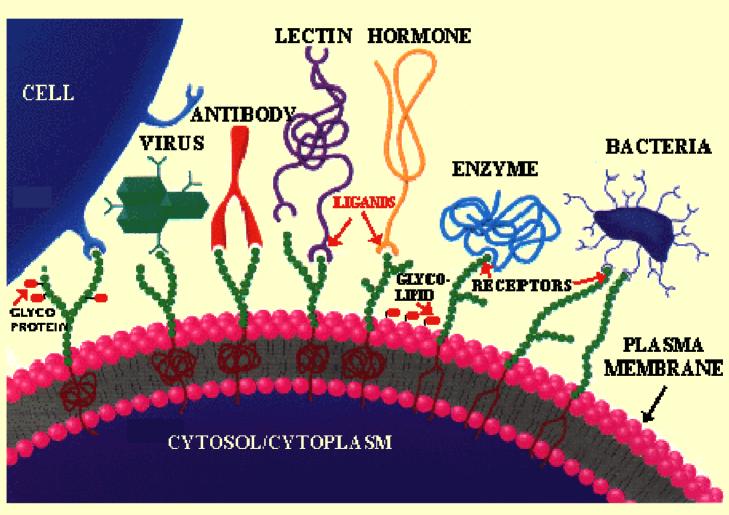
# Life is organization and non-life is chaos. Organization means ordered interaction of molecules So, it is currently postulated that

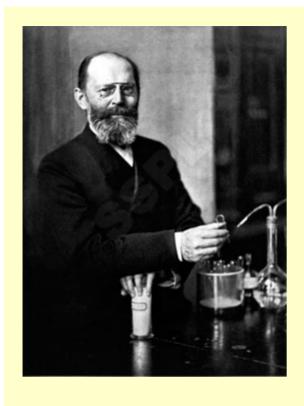
Ligand/Receptor-like pairs of biomolecules bind together specifically,

like LOCK and KEY causing unique biological events to occur



# According to the textbook wisdom <a href="mailto:the-Lock/Key paradigm describes the most FUNDAMENTAL">the Lock/Key paradigm describes the most FUNDAMENTAL</a> <a href="PRINCIPLE or (even) THE MECHANISM of life.">PRINCIPLE or (even) THE MECHANISM of life.</a>

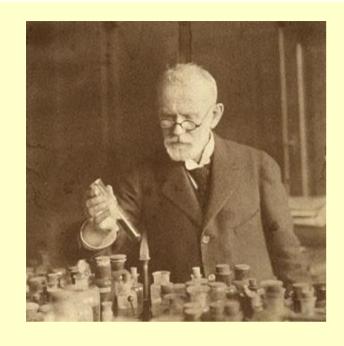




Emil Fisher, 1852-1919, Nobel prize, 1902

Lock and Key analogy was first postulated in 1894 by Emil Fischer

"I am far from placing this hypothesis side by side to the established theories of our science, and readily admit, that it can only be thoroughly tested..."



Paul Ehrlich, 1854-1915, Nobel prize, 1908

Paul Ehrlich, the founder of pharmacology, induced the **lock-and-key** analogy to become something of a dogma for explaining principal life processes. At that, it is not usually considered that the lock may be opened or closed by the key *only if the external force is applied*.



The problem of energy needed for "principle life processes" to proceed was readdressed to some other department.

# Contemporary customary experience suggests the alternative view on the "Key/Lock" analogy





Here the "Key/Lock" interaction and recognition of a key by a lock is based on the principle of RESONANCE.

Besides here the key does not open (close) the lock by force. The lock may react to the key only if it has internal source of energy.

# The principle of specific "action at a distance" realized in countless contemporary technologies is based on the very foundation of physics:

ng this occasin I'd like again to thank you very very much for nominating me on Prigigine pr

## Quantum Field Theory (QFT)



Theoretical physicist Pascual Jordan (1902-1980)

Jordan was the first to realize (1928) that

"all things in the universe – photons, electrons, protons, atoms, and elephants – are field quanta." "...Particles and waves are only complementary aspects of the underlying quantum field".

(After Olivier Darrigol, 1986)

Pascual Jordan contributed more than anybody else to the birth of quantum field theory [QFT]

(although among the creators of quantum mechanics he is certainly the least known)

## Pascual Jordan – the founder of Quantum Biology

Jordan put forward the idea that the background of biological phenomena are quantum processes (Quantum jumps), adequately amplified by the biological organism to produce in deterministic effects at the macroscopic level. (*Die Physik und das Geheimnis des organischen Lebens* Braunschweig, 1941) (The physics and the secret of organic life)

Jordan proposed "Amplifier theory of life" meaning that living systems may be able to amplify weak signals, even single photons, in such a way that they trigger macroscopic events.

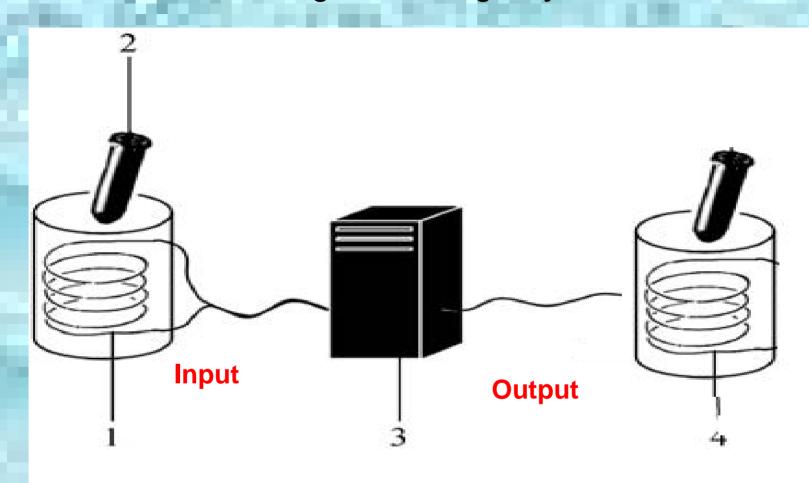
Jordan proposed a model of gene replication based on the principles of quantum mechanics: genes replicated by attracting their constitute elements from the surrounding medium, the interaction between two identical elements being favored by the existence of a long-range resonant energy.

Jordan's model seems to anticipate the aqua-resonance mechanism of DNA replication discovered by Luc Montagnier.

Jordan's ideas were further developed by Italian theoretical physicists Giuliano Preparata, Emilio Del Giudice and Giuseppe Vitiello who applied the principles of Quantum Field Theory to explain the unique properties of water

These ideas were first experimentally supported by J. Benveniste et al. who realized Electronic Transmission of "Informational Images" of biologically active substances to water.

## A Principle Scheme of a device for Electronic Transmission of "Informational Images" of biologically active substances



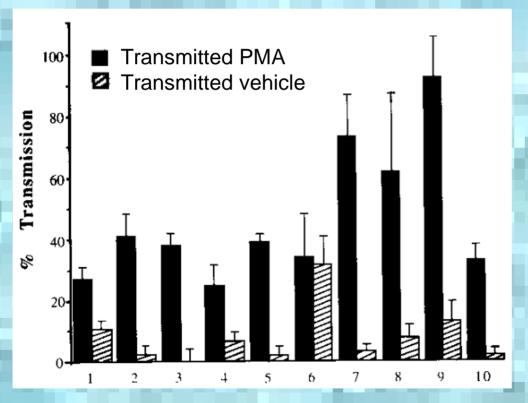
1. INPUT coil // 2. Solution of a Biologically Active Substance // 3. Amplifier-Oscillator // 4. OUTPUT coil // 5. Water, or Culture medium, or Cell culture

# Activation of human neutrophils by electronically transmitted phorbol-myristate acetate

Y. Thomas, M. Schiff, L. Belkadi, P. Jurgens, L. Kahhak,

J. Benveniste<sup>1</sup>

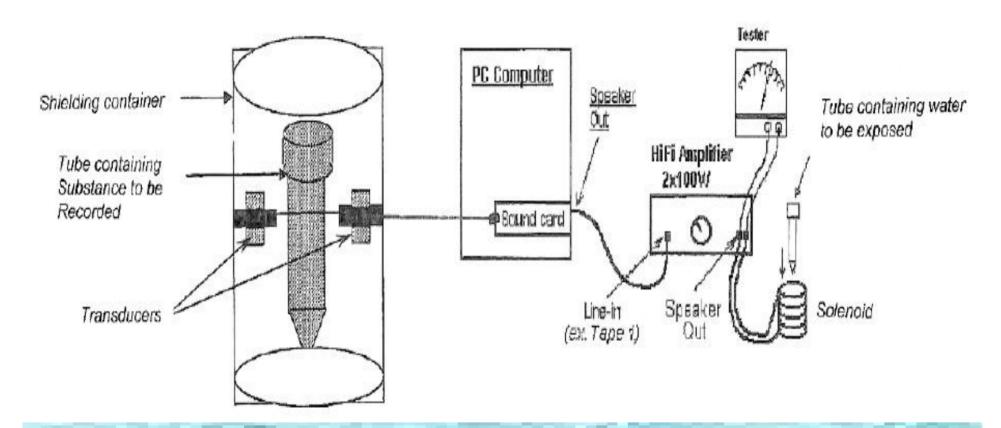
<sup>1</sup>Institut National de la Santé et de la Recherche Médicale, (INSERM) U200, and Digital Biology Laboratory, Clamart, France <sup>2</sup>CNRS, Centre de Recherche en Histoire des Sciences et des Techniques, Paris, France



The results of 10 independent blind experiments

"...normal human neutrophils reacted to PMA transmitted via an electronic oscillator by reducing cytochrome c as though they had been directly exposed to PMA. This phenomenon was not observed when the oscillator was turned off..., when protein kinase inhibitors were added to neutrophils..., when active PMA in the input solution was substituted by its inactive analogue

## The device for computer digital recording of the signals, their storage and replay (including transmission via Internet)



"Digital" signals of acetylcholine, histamine, ovalbumine, Direct
Thrombine Inhibitor produced specific effects on appropriate biological
test systems.

Benveniste, J.; et al. TRANSATLANTIC TRANSFER OF DIGITIZED ANTIGEN SIGNAL BY TELEPHONE LINK. J. Allergy Clin. Immunol., 99:S175 (1997).



# Luc Montagnier device for the capture and analysis of "loud" EM signals from high aqueous dilutions of pathogenic bacteria and their genes.

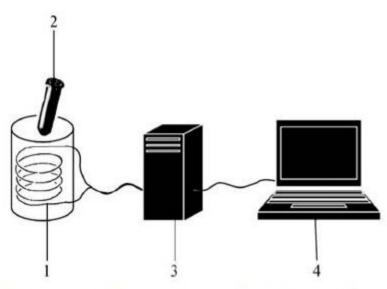
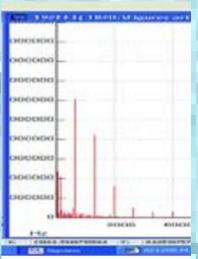


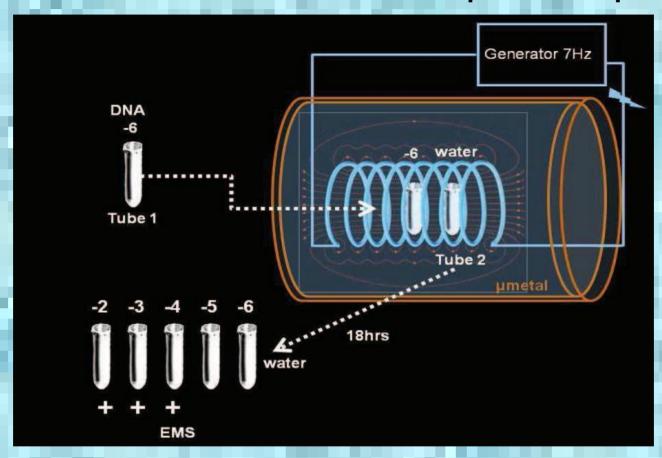
Fig. 1 Device for the capture and analysis of electromagnetic signals (EMS): (1) Coil: a bobbin of copper wire, impedance 300 Ohms; (2) Plastic stoppered tube containing 1 mL of the solution to be analyzed; (3) Amplifier; (4) Computer with softwares.





Montagnier L., et al. (2009) Electromagnetic signals are produced by aqueous nanostructures derived from bacterial DNA sequences., Interdiscip. Sci. Comput. Life Sci., 1: 245-253.

Experimental set-up for the imprinting of specific DNA signal from "active" dilution of viral or bacterial DNA sequence into pure water.



Certain dilutions of pure water turn into emitters of "loud" EM signals and serve as templates for the synthesis of specific DNA sequences using normal PCR procedure.

Montagnier, L., et al. 2011. DNA waves and water. Journal of Physics: Conference Series. 306: 012007.

## REFERENCES ON ELECTRONIC TRANSMISSION OF DRUG BIOLOGICAL ACTIVITY ON WATER AND AQUEOUS SYSTEMS

Thomas Y., et al. (2000) **Activation of human neutrophils by electronically transmitted phorbol–myristate acetate**. Med. Hypotheses. **54**, 33-39.

Ruzic R., et al. (2008) Effects of electrically transferred molecular information on the germination of garden cress. Int. J. High Dilution Res., **7(24)** 

Montagnier L., et al. (2009) Electromagnetic signals are produced by aqueous nanostructures derived from bacterial DNA sequences., Interdiscip. Sci. Comput. Life Sci., 1: 245-253.

Montagnier, L., Aissa, J., Del Giudice, E., Lavallée, C., Tedeschi, A. & Vitiello, G. 2011. DNA waves and water. Journal of Physics: Conference Series. 306: 012007.

Foletti A., et al. (2011) Differentiation of human LAN-5 neuroblastoma cells induced by extremely low frequency electronically transmitted retinoic acid. JACM 17(8), 701-704.

Heredia-Rojas J. A., et al. (2011) Entamoeba histolytica and Trichomonas vaginalis: Trophozoite growth inhibition by metronidazole electro-transferred water, Exp. Parasitology, **127(1)**, 80-83.

Foletti A., et al. (2012) Experimental finding on the electromagnetic information transfer of specific molecular signals mediated through the aqueous system on two human cellular models. JACM 18(3), 258-261

Heredia-Rojas A.J., et al. (2012) **Antimicrobial effect of amphotericin B electronically-activated water against Candida albicans.** African J. Microbiol. Res. 6(15), 3684-3689, 2012

# THUS THE PRINCIPLE OF ELECTRONIC TRANSMISSION OF BIOLOGICAL ACTIVITY OF SPECIFIC SUBSTANCES ON AQUEOUS SYSTEMS IS CONFIRMED BY QUITE A FEW OF INDEPENDENT RESEARCHES.



Since 2009 Russia-based DST-Foundation promotes practical application of Greenstein-Shraibman's technology of transfer of "informational copies" of medical drugs at a distance, evaluates clinical efficiency of treatment of patients with water "charged" with specific drug information and to support scientific survey of this phenomenon.

## OUTLINE OF THE TECHNOLOGY OF ELECTRONIC TRANSMISSION OF INFORMATIONAL COPIES OF MEDICAL DRUGS.

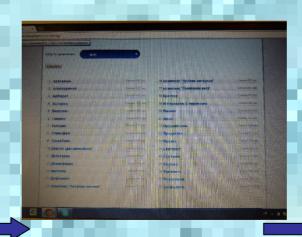


1. A pill is placed on a CD and illuminated with a laser pointer



2. "Informed" CD is inserted into a CD-ROM of a computer connected to Internet

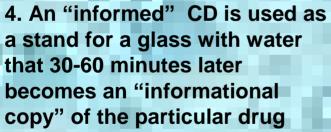






3. A client chooses a particular drug from the list at the web-site <newpharm.com>, inserts a clear CD into his computer, clicks on the name of the drug, and several minutes later extracts the CD "informed" with the Electronically Transmitted drug







During the day, you should drink only this water - in the quantity you used to drink.
When finished, add more water to the glass.

## More information on the technique and available downloads see at the web-site

http://www.newpharm.com



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#### **EMISSION**

THE ESSENCE OF THE "EMISSION" PROJECT IS THE POSSIBILITY TO TRANSMIT EMISSION (PROPERTIES) OF ORGANIC AND INORGANIC SUBSTANCES AND BIOLOGICAL OBJECTS

### ARTIFICIAL BLOOD SUBSTITUTE

AUTHORS OF THE INVENTION: PH.D. BIOLOGY, CANDIDATE OF CHEMICAL SCIENCES, KUZNETSOVA IRINA AND PH.D. MEDICINE EVGENY MAEVSKY, AT300 WAS DEVELOPED

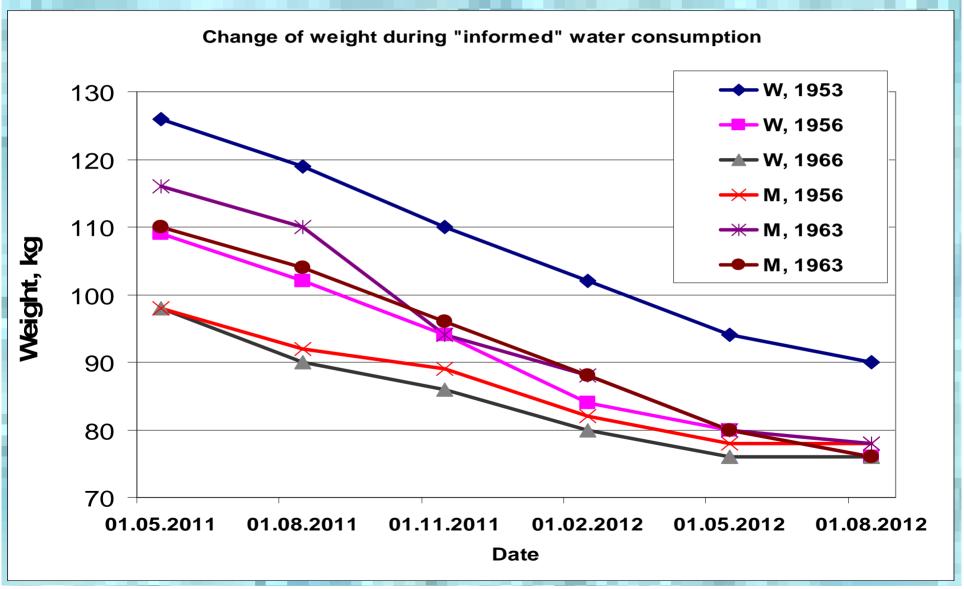
### CANCER TREATMENT

DISSYMETRIC THERAPY (ANISOTROPIZING) TINCTORIAL THERAPY (DST) - IS AN INNOVATIVE METHOD OF ONCOLOGICAL DISEASES TREATMENT. IT IS BASED ON THE Currently about 50 "informational images" of drugs are approved by M.D.s participating in the Program, and about 30 images are under the probation.

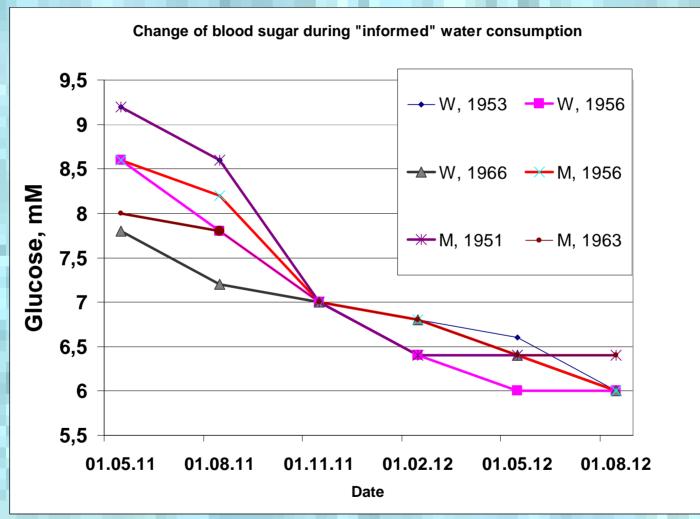
From September 2011 until August 2012 M.D.s observed the effect of "informational images" of Electronically Transmitted drugs on more than 2000 patients including about 800 patients whose state of health was monitored for different periods of time.

According to the objective data and self-evaluation of the patients state of health, absence of recovery or even some deterioration of health was observed in no more than <u>5-7%</u> of all the cases.

Long-term consumption of water treated with "informational images" of Glucophage (oral antidiabetic drug for type 2 diabetes) and of Thermonex (weight loss complex) decreased weight of overweight diabetes type 2 patients by 25-35 kg (Data of L.A.Tansky, MD, Ukraine.)



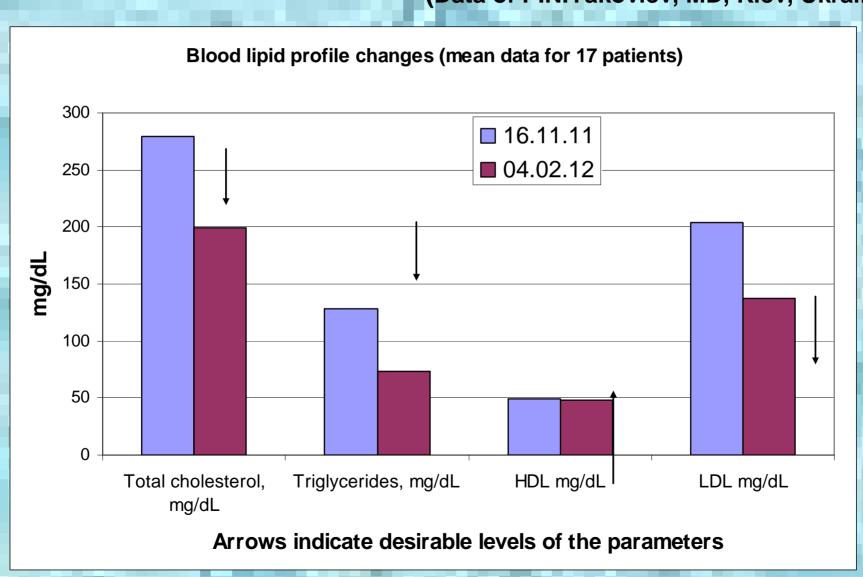
# Water treated with "informational images" of Glucophage and of Thermonex significantly decreases sugar blood levels of overweight diabetes type 2 patients.



Total Cholesterol, Triglycerydes and Glycated Hb contents of blood for all the patients was also normalized

# Water treated with "informational image" of Crestor (Rosuvastatin) significantly improves blood lipid profiles of patients with ischemic heart disease

(Data of P.N.Yakovlev, MD, Kiev, Ukraine)



Immunostimulatory effects of Transmitted
Arbidol and of Arbidol® (substance) on
immunodeficient mice and
immunosuppressant effect of Transmitted
Dexametasone and Dexametasone on mice

Arbidol (Umifenovirum) - antiviral and immunostimulatory drug

Dexametasone (Dexone) - immunosuppressant and anti-inflammatory

# Immunostimulatory effects of Transmitted Arbidol® and Arbidol® on immunodeficient mice

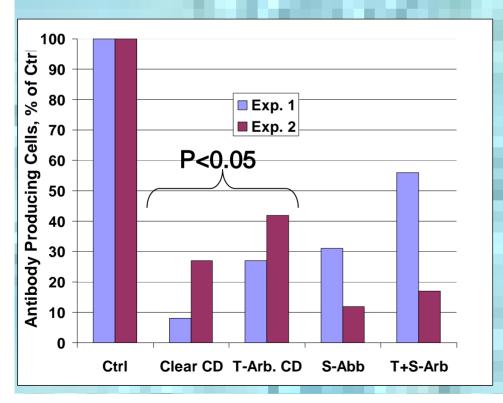
### **Experimental setup:**

- 1. Mice were irradiated with γ-radiation at a sub-lethal dose of 1 Gy
- 2. Mice were injected daily for 3 days with 0,5 ml of physiological solution (Saline):
- Control 1 intact mice, to which intact Saline was injected
- Control 2 -- Saline exposed for 1 day on a clear CD
- Exp.1 Saline on a CD with T-Arbidol
- Exp.2 Saline on a clear CD + arbidol added
- Exp.3 Saline on CD with T-Arbidol + arbidol (125 mg/kg) added
- 3. Mice were immunized with ram erythrocytes and 4 days later number of antibody-producing cells (APC) in their spleens was determined

# Immunostimulatory effects of Transmitted Arbidol® and Arbidol® on immunodeficient mice

### Results:

After irradiation spleen weight, the number of nucleated cells and the number of Antibody Producing Cells in response to immunization decreased – symptoms of severe immunodeficiency.



Treatment with T-Arbidol significantly increased the number of APC in all the experiments, while the effect of S-Arbidol was unstable.

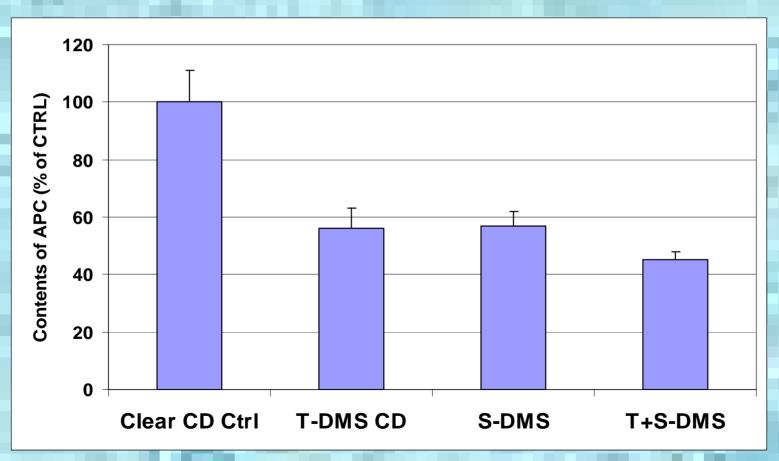
Thus, water exposed to Electronically transmitted Arbidol possesses immunostimulatory effect itself and it also increases immunostimulatory effect of Arbidol®

# Immunosuppressant effect of Transmitted Dexametasone on mice

- 1. Mice were injected with physiological solution (Saline):
- Control -- Saline exposed for 1 day on a clear CD
- Exp.1 Saline exposed for 1 day on CD with T-Dexametasone
- Exp.2 Saline exposed for 1 day on a clear CD + DMS (0,5 mg/kg) added
- Exp.3 Saline exposed for 1 day on CD with T-DMS + DMS (0,5 mg/kg) added
- 2. Mice were immunized with ram erythrocytes and 5 days later the number of antibody-producing cells (APC) in spleen was determined

# Immunosuppressant effect of Transmitted Dexametasone on mice

T-DMS-saline treatment reduces contents of Antibody Producing Cells to 50% of the control (similar to DMS effect). However T-DMS treatment was devoid of side effects of DMS.



Thus, CDs "informed" by electronically transmitted drugs change properties of water incubated on them.

Water imitates biological activity of a drug; water is presumably devoid of side effects of a "material" drug

Preliminary data on the changes of properties of water and aqueous solutions under the effect of CDs "informed" with electronically transmitted drugs.

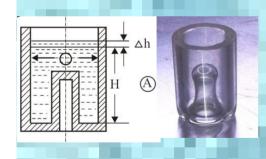
1.CDs and "Informed" CDs influence water evaporation properties

2. CDs and Informed CDs influence red/ox properties of bicarbonate aqueous systems revealed by photon emission from them

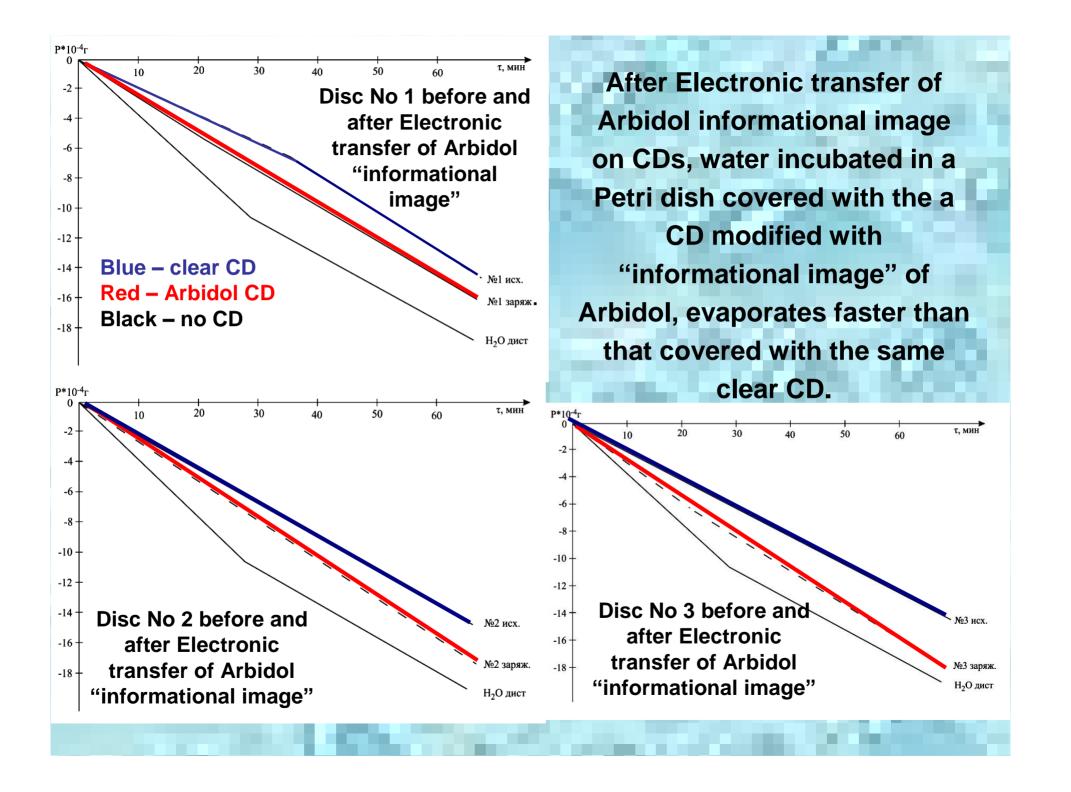
Experimental setup for study of effects of CDs on water evaporation:



1. A Petri dish is filled with distilled water and covered either with a clear CD or a CD "informed" with electronically transmitted drug



2. 0,5 ml portions of water are transferred from Petri dish into a cuvette of a device for measuring temperature-dependent evaporation of substances.



## Experimental setup for study of effects of CDs on photon emission from bicarbonate aqueous systems:

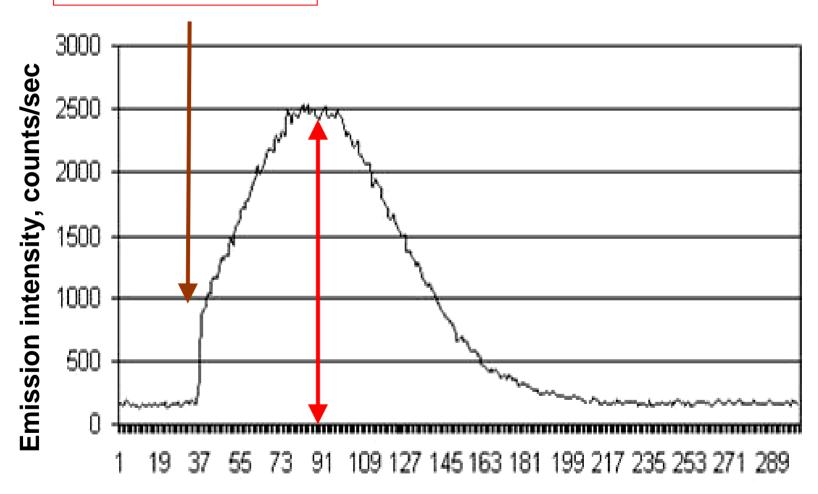


1. Vials are filled with bicarbonate water and put on clear CDs or CDs on which informational image of a drug was electronically transferred.



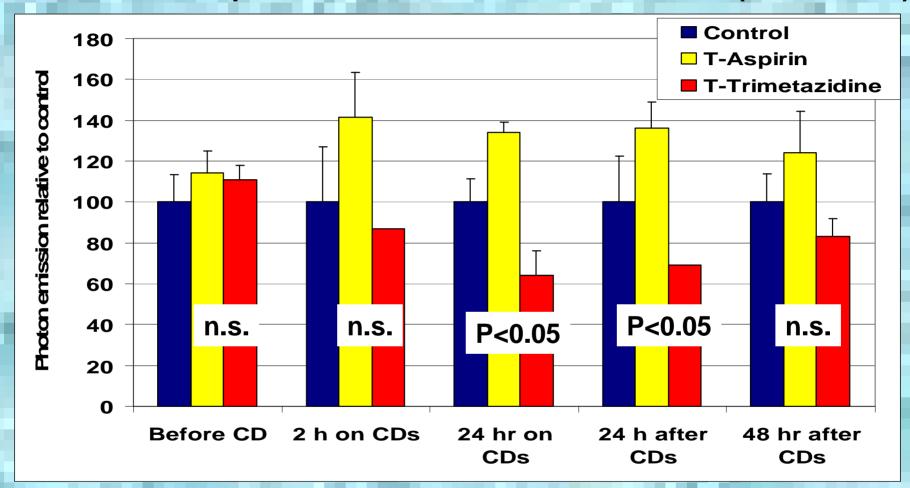
2. Fe(II) salt is added to water samples to initiate photon emission from it. Intensity of photon emission is registered on a single photon counter.

"Reagent": FeSO<sub>4</sub> (1-10 mkM) ± Luminol (5-25 mkM)



Time (sec)

Evolution of energetic properties of artesian bicarbonate water standing on a clear CD and on a CD "informed" with either "transmitted" Aspirin or "transmitted" Trimetazidine (antioxidant)



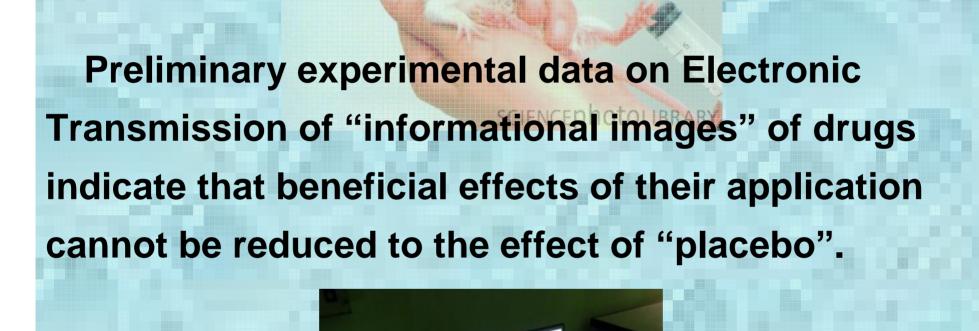
CD with T-Aspirin promotes *increase* and CD with T-Trimetazidine promotes *decrease* in intensity of ROS-dependent reactions in drinking water



".... Most drugs have some associated toxicities, including the most commonly used, counter-top drugs like aspirin. A digitally transmitted medicine [based on the discovery made by Jacques Benveniste] may have all the benefits but little adverse effect, not mentioning its convenience: Doctors could prescribe and apply medicine via computer or phone to the patient."

In memoriam Jacques Benveniste

Prof. Wei Hsueh

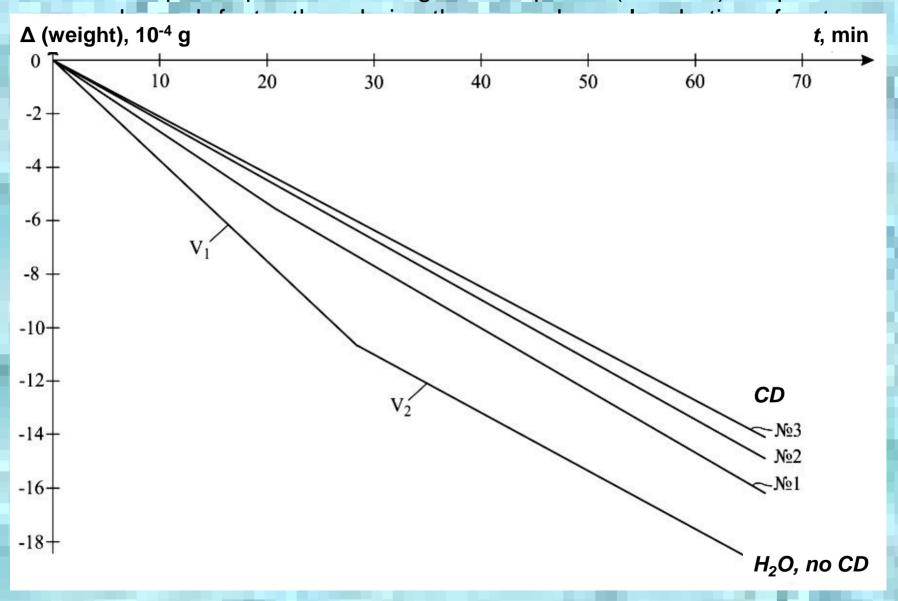


These effects are based on the principles of Quantum Field Theory.

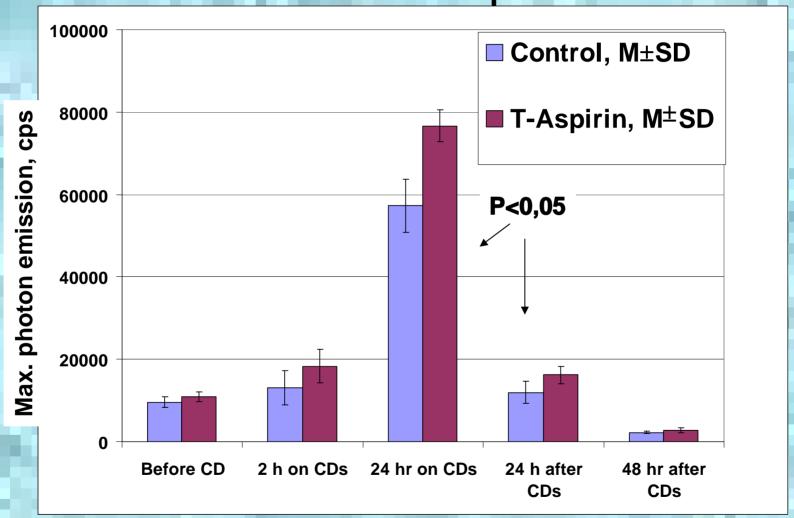
At that the new understanding of unique properties of water as a holistic non-equilibrium coherent system is needed for puzzling out the mechanism of Electronic Transmission phenomenon.



It was demonstrated that distilled water evaporation from the narrow quartz tube is a two phase process. During the first phase (~30 min) evaporation

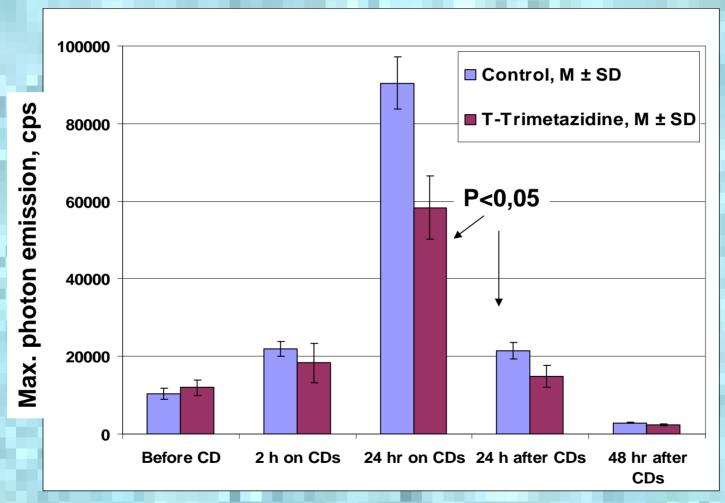


Evolution of energetic properties of artesian bicarbonate water standing on a clear CD and on a CD "informed" with "transmitted" Aspirin



CD with T-Aspirin promotes *increase* in intensity of ROS-dependent reactions in drinking water

Evolution of energetic properties of artesian bicarbonate water standing on a clear CD and on a CD "informed" with "transmitted" Trimetazidine (antioxidant)



CD with T-Trimetazidine promotes decrease in intensity of ROS-dependent reactions in drinking water