# Experimental Evidence of Nonlocal Physical & Chemical Effects in Water

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# **Outline**

- Why & when our experiments were conducted.
- Experimental Designs & results with water: Changes of temperature, pH & weight.
- Materials, experimental designs of human tests & 1<sup>st</sup>-person (subjective) findings: Brain effects.
- Interpretations of these findings.
- Some Implications & applications.
- > The need of independent replications.

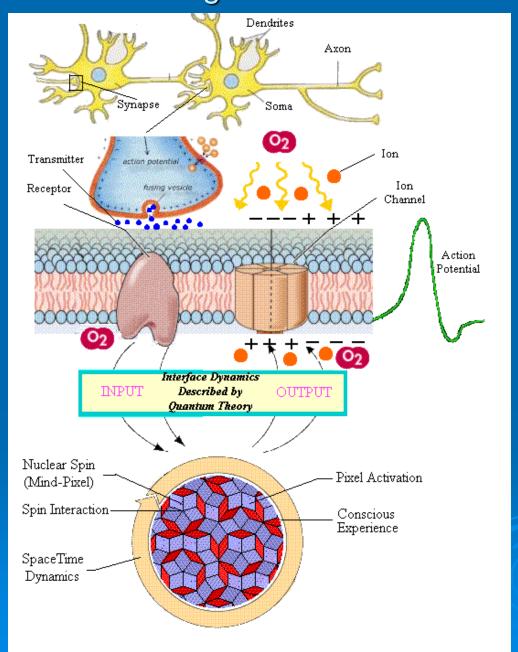
## Why & When The Experiments Were Done

- Why? To test "Spin-Mediated Consciousness Theory" put forward by us in arXiv:quant-ph/0208068v1 (2002); published in Medical Hypotheses 63(4): 633-646 (2004):
  - Spin is the seat of consciousness & the linchpin between mind & the brain (spin is the mind-pixel).
  - Specifically, consciousness is intrinsically connected to the nuclear/electronic spin processes in the brain & emerges from the collective dynamics of nuclear &/or electronic spin states.
  - The unity of mind is achieved by entanglement of these mind-pixels.
- When? Human experiments (no ingestion of substance) were conducted in 2005 & water experiments in 2006.

# Bases of Spin-Mediated Consciousness Theory

- Spin is the basic qubit for encoding information and nuclear spins have long relaxation times after excitations which matches and/or exceeds time scales of brain activities.
- Spin has been shown responsible for all quantum effects in both Hestenes & Bohmian pictures of quantum mechanics.
- In relativistic QM, Spin is embedded in the structure of spacetime as reflected by Dirac equation.
- Neural membranes and proteins contain vast numbers of nuclear spins such as <sup>1</sup>H, <sup>13</sup>C, <sup>31</sup>P and <sup>15</sup>N which are the natural targets of interaction with electromagnetic fields.
- Nuclear/electronic spins form complex spin networks inside the brain which are modulated by the action potentials.

## **Biological Model**



# How to Test Spin-Mediated Consciousness Theory

#### Thought Experiments

- Try to quantum-entangle the nuclear/electronic spins inside the brain with those in an external substance.
- Assuming entanglement occurs for a certain length of time and the quantum entity associated with spin can directly sense & utilize said entanglement, test subject may feel the effect of the external substance.
- On the same token, if two physical systems are quantum-entangled and one of them is manipulated, the physical properties of the other such as pH, temperature & even weight may be effected through spin-mediated nonlocal processes.

#### Real Experiments

Carry the Experiment to find out whether anything would happen.

#### What Is & How to Generate Quantum Entanglement

- "Two or more quantum systems are said to be in an entangled ...state if their joint wave-function is not expressible as a product of individual wave functions but is instead a superposition of product states." e.g., Thomas Durt (2004), arXiv:quant-ph/0401121v1
- "Whenever two quantum systems interact with each other, it is impossible that all factorisable states remain factorisable during the interaction unless the full Hamiltonian does not couple these systems so to say unless they do not really interact.... [i]n quantum
- mechanics to interact means nearly always to entangle." [ID]

$$i\hbar \partial_t \Psi_{AB}(t) = H_{AB}(t)\Psi_{AB}(t)$$
  $H_{AB}(t) = H_A(t) \otimes I_B + I_A \otimes H_B(t)$ 

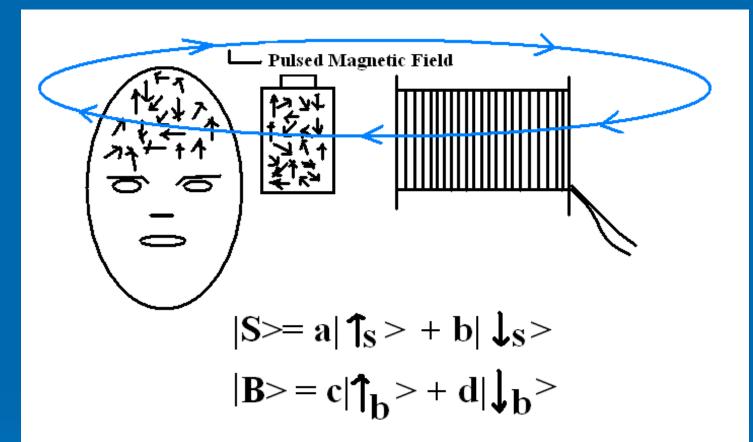
In H<sub>2</sub>O, both J-coupling/dipolar coupling of two proton spins (H, H) within a H<sub>2</sub>O & dipolar coupling between proton (H) & proton (H) spins of two H<sub>2</sub>Os [couple two spins], so the two respective proton spins get quantum-entangled with each other.

$$H_{AB} == J \mathbf{I}_A \cdot \mathbf{J}_B$$

$$H_{AB} == \frac{D}{|\mathbf{r}|^3} (\mathbf{I}_A \cdot \mathbf{I}_B - 3(\mathbf{I}_A \cdot \mathbf{r})(\mathbf{I}_B \cdot \mathbf{r}))$$

$$\psi_{AB}^{\mp} == \frac{1}{\sqrt{2}} (|\uparrow\rangle_A \otimes |\downarrow\rangle_B \mp |\downarrow\rangle_A \otimes |\uparrow\rangle_B)$$

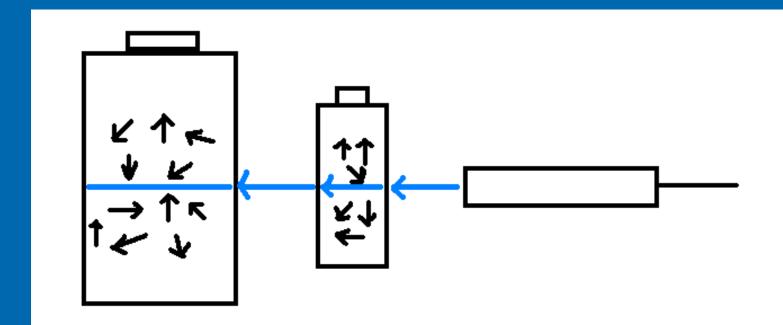
#### Entanglement of Two Spin Ensembles by Magnetic Pulse



Magnetic Pulses = Non-local Bell Measurement

$$|BS\rangle = |\uparrow_b\rangle \langle g\rangle |\uparrow_S\rangle + |\downarrow_b\rangle \langle g\rangle |\downarrow_S\rangle$$

# Entanglement of Two Spin Ensembles by Forward Light Scattering (Both Elastic and Inelastic)



Ref. Julsgaard, B.et al. Experimentally long-lived entanglement of two macroscopic objects. Nature 413, 400–403 (2001)

#### How to Overcome No-Communication Theorem

- "Quantum field theory cannot provide faster than light communication", Eberhard, Phillippe H.; Ross, Ronald R. (1989), Foundations of Physics Letters, 2 (2)
- To overcome the no-communication theorem, one goes beyond probabilistic interpretation of QM (assumption) and accepts wave-function to be real entity and its quantum entanglement with other quantum entities to be able to produce observable physical effect.
- One then does experiments to generate and measure bulk/macroscopic nonlocal physical effects (other than measure individual quantum observables such as spin polarization)

#### How to Reconcile nonlocal quantum effect with Relativity

Re-interpretation of Relativistic QM (e.g. Dirac Equation) in the framework of the Principle of Existence also proposed by us.

$$(x, ct) \qquad (x, ct)$$
External Spacetime
$$E \to i\hbar \hat{c}_t \qquad E \to i\hbar \hat{c}_t$$

$$\mathbf{p} \to -i\hbar \nabla_x \qquad \mathbf{p} \to -i\hbar \nabla_x$$

$$(x, ct) \qquad (x, ct)$$
Internal Spacetime
$$E \to i\hbar \hat{c}_t \qquad \mathbf{p} \to -i\hbar \nabla_x$$

$$E \to i\hbar \hat{c}_t \qquad \mathbf{p} \to -i\hbar \nabla_x$$
Entity A
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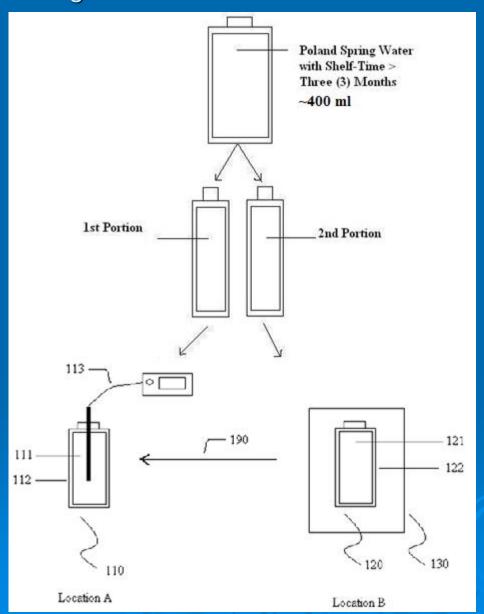
$$E \to i\hbar \hat{c}_t \qquad \mathbf{p} \to -i\hbar \nabla_x$$

$$E \to i\hbar \nabla_x$$

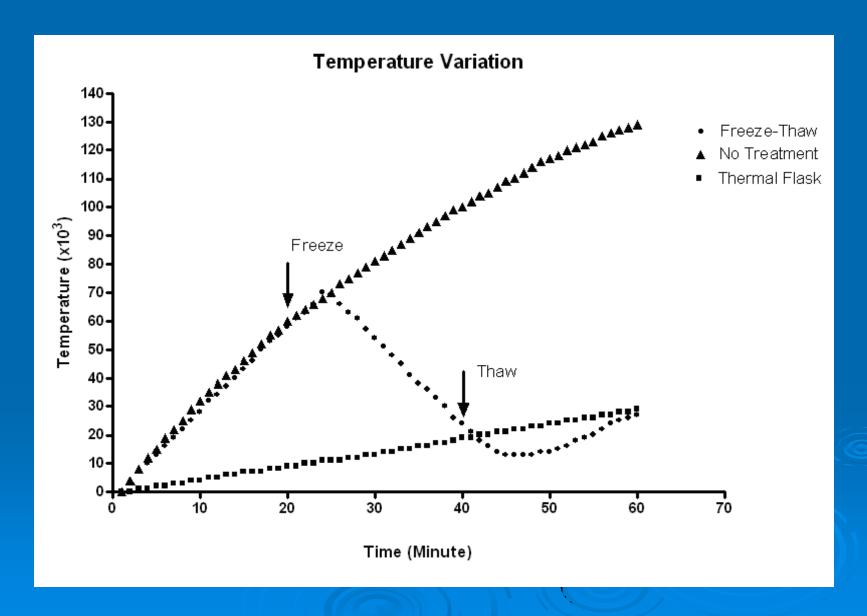
# High Precision Instruments & Setup



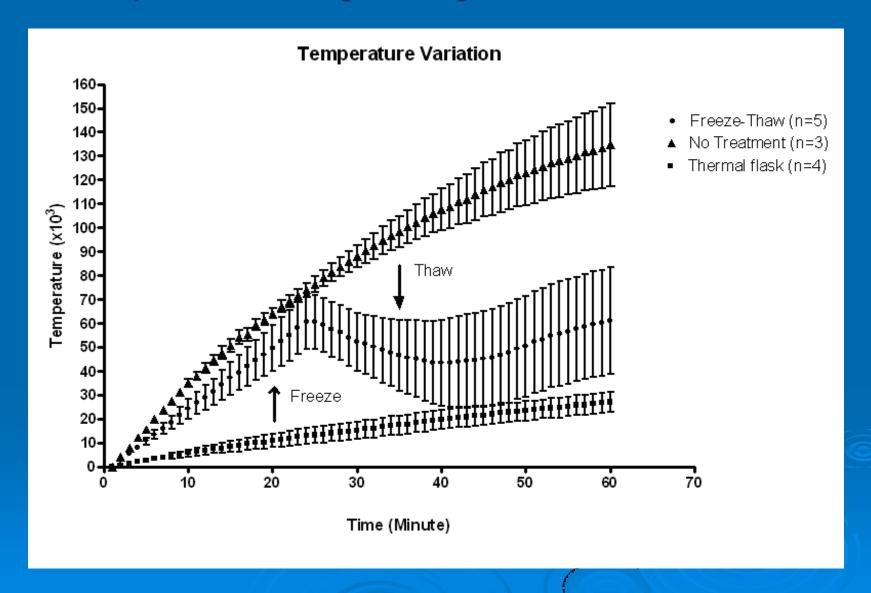
# Temperature or pH Measurement During Remote Freeze-Thaw Treatment



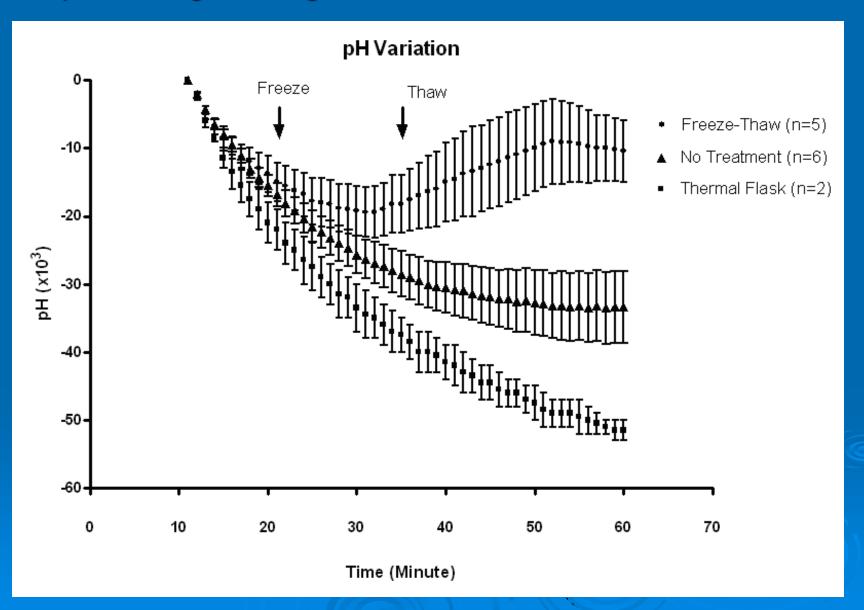
#### Temperature Change during Remote Freeze-Thaw



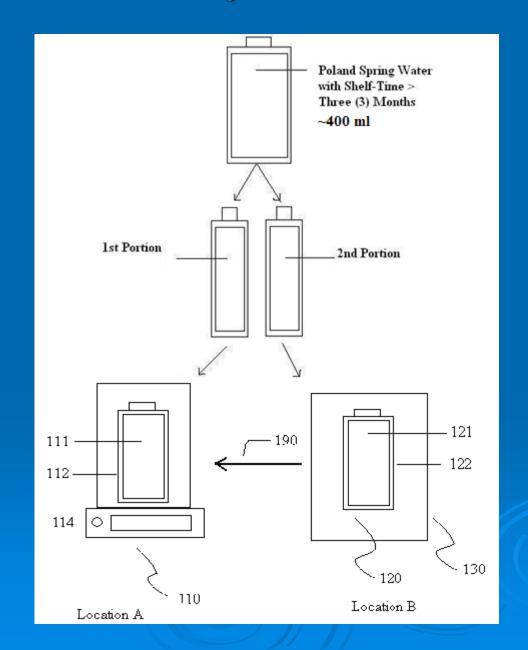
#### Temperature Change during Remote Freeze-Thaw



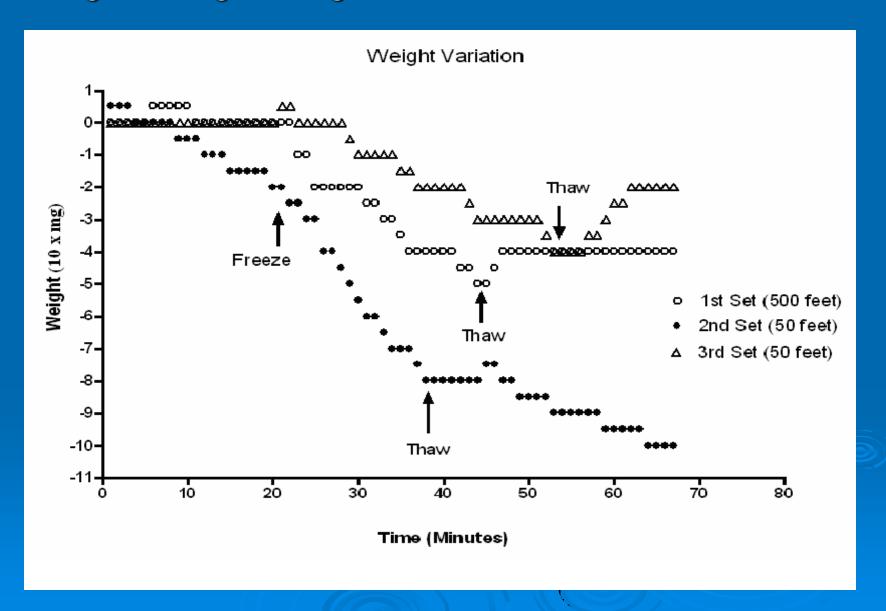
#### pH Change during Remote Freeze-Thaw Treatment



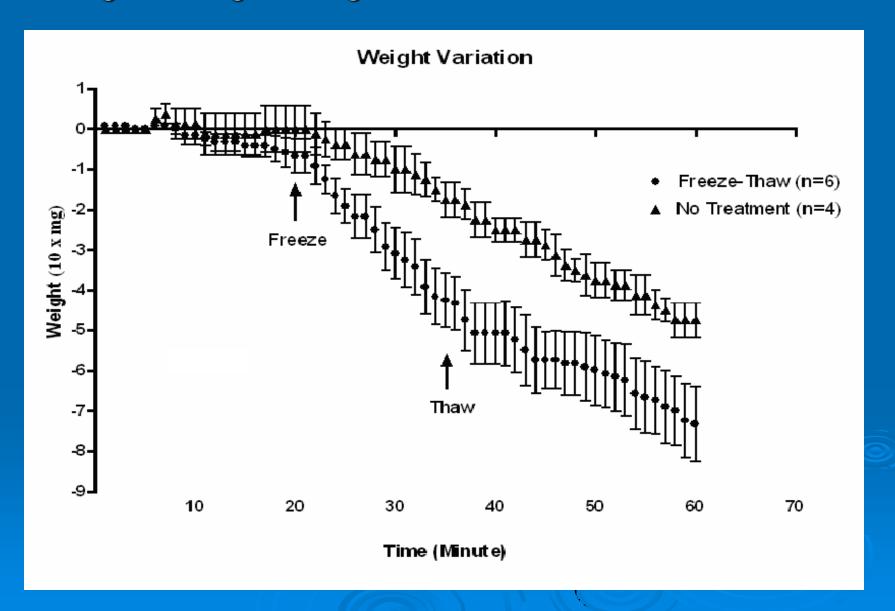
#### Weight Measurement during Remote Freeze-Thaw Treatment



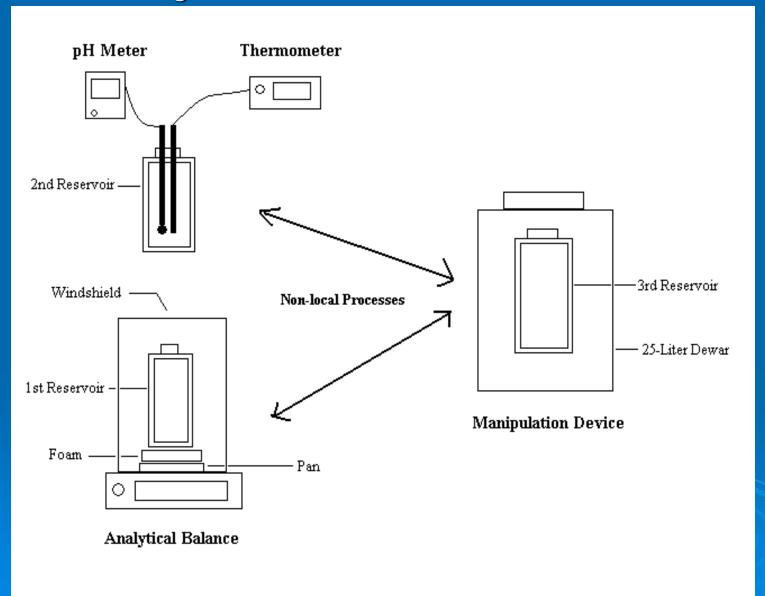
#### Weight Change during Remote Freeze-Thaw Treatment



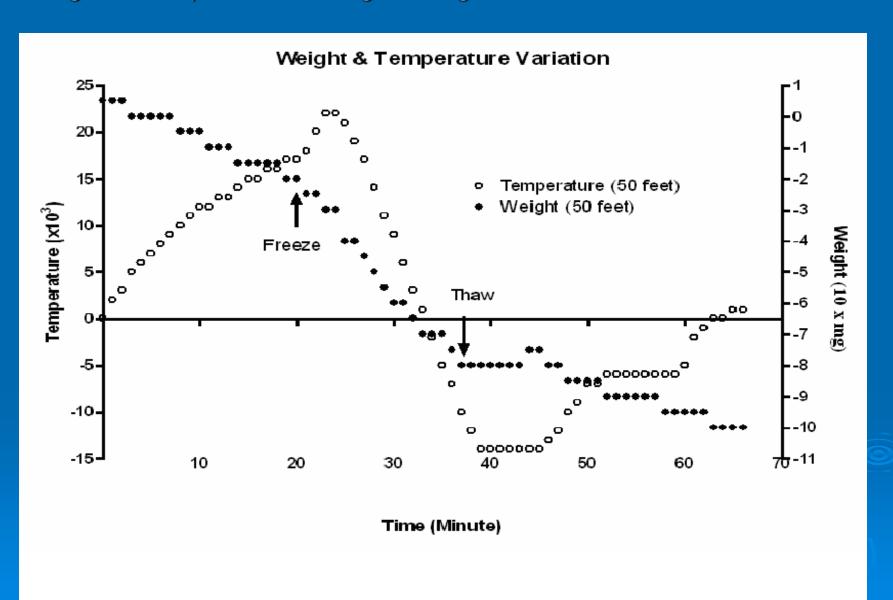
#### Weight Change during Remote Freeze-Thaw Treatment



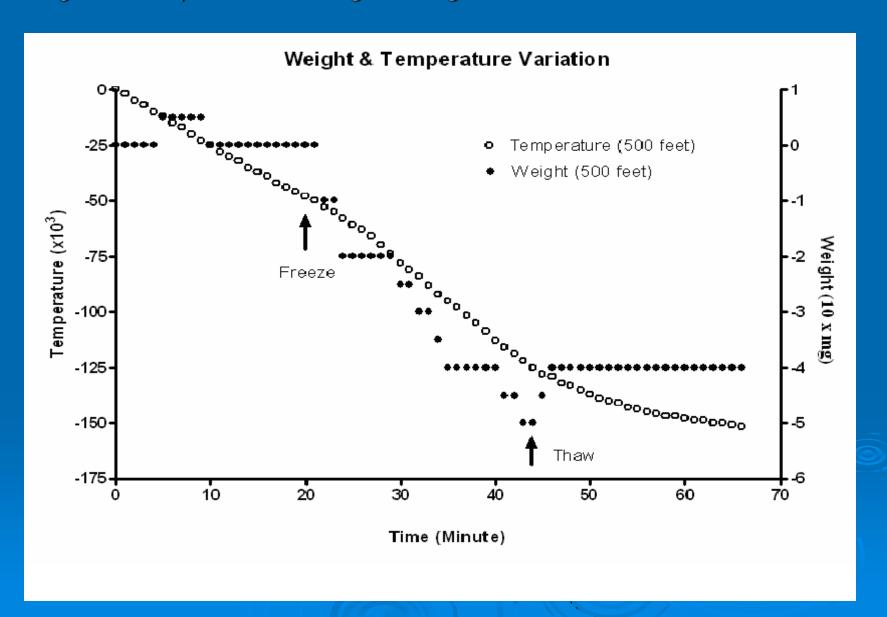
## Simultaneous Temperature & Weight Measurement During Remote Freeze-Thaw Treatment



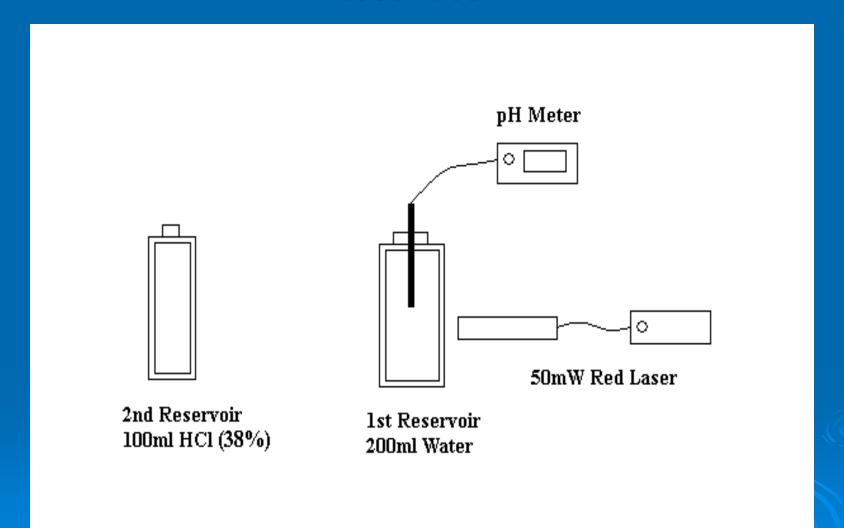
#### Weight & Temperature Change during Remote Freeze-Thaw Treatment



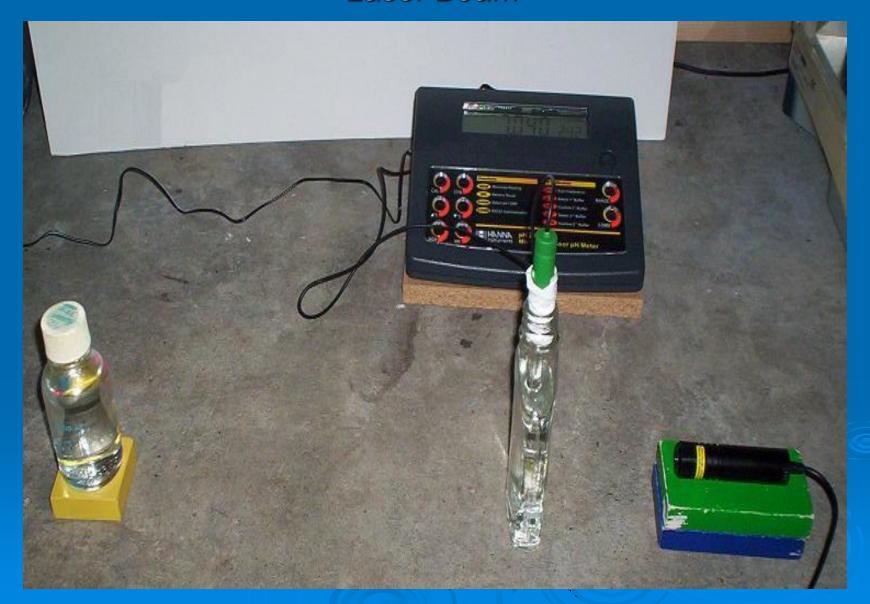
#### Weight & Temperature Change during Remote Freeze-Thaw Treatment



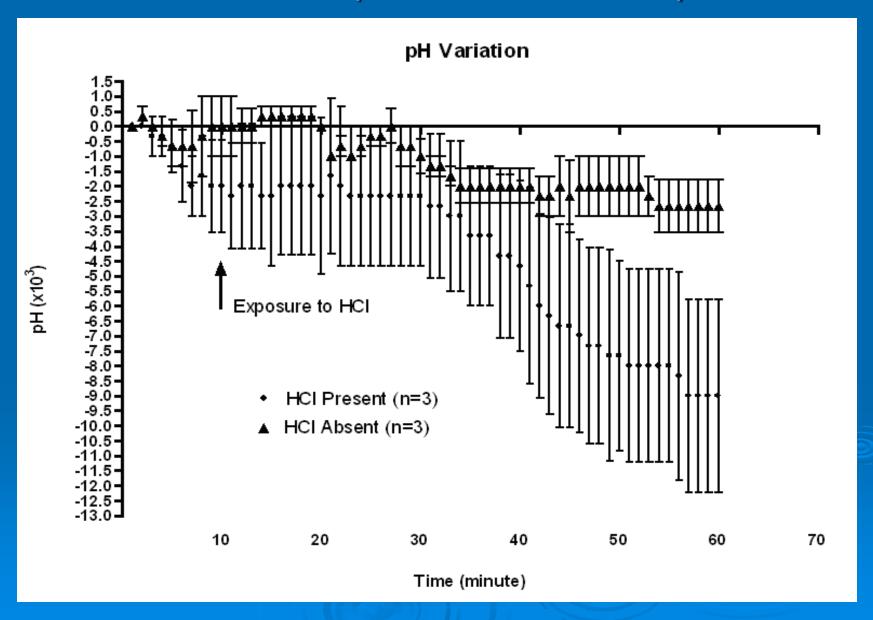
# pH Measurement during HCI-Water Interaction through Laser Beam



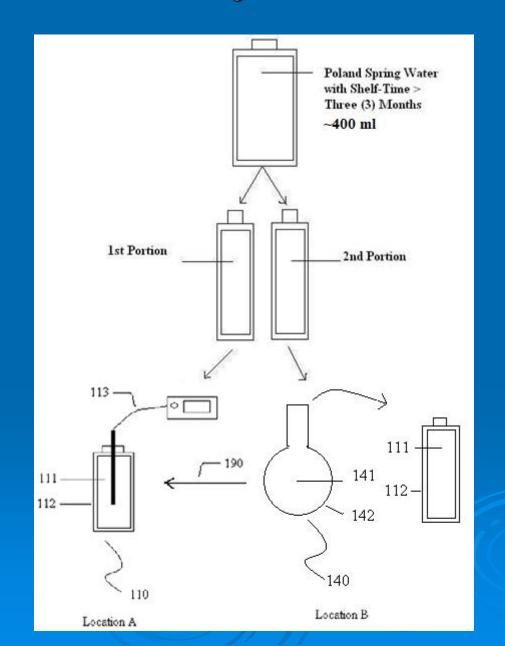
# pH Measurement during HCI-Water Interaction through Laser Beam



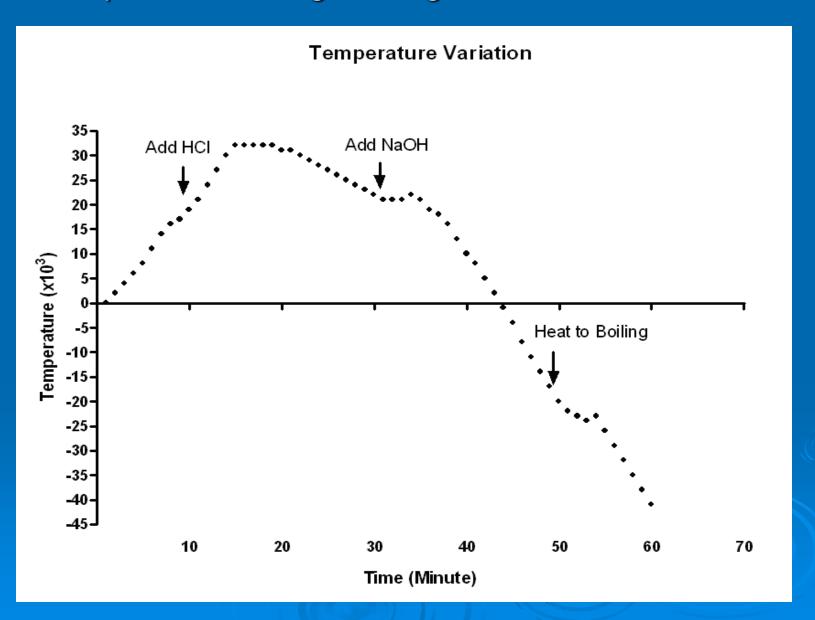
#### Results From pH Measurement Setup



#### Temperature Measurement during Remote Addition of Chemicals



#### Temperature Change during Addition of Chemicals



# Materials in Human Test (No Ingestion)

- Anesthetics:
- > CHCl<sub>3</sub> (Chloroform, pure)
- CDCl<sub>3</sub> (Chloroform D, pure)
- CF3-CHCI-O-CHF2 (Isoflorance, pure)
- CH<sub>3</sub>-O-CH<sub>3</sub> (Dimethyl Ether, pure)
- > CH<sub>3</sub>-CH<sub>2</sub>-OH (Ethanol, pure)
- CBr3-CH2-OH (Tribromoethanol, 50:1 by weight)
- Medications (Unused pain medications of family member):
- Morphine Sulfate (Solution, 20mg/ml, 20ml sample size)
- Fentanyl (Patch, 10mg/patch, magnetic coil only)
- Nicotine (Patch, 21mg/patch, magnetic coil only)
- Coffee (Instant coffee powder, 10g/bag, magnetic coil only)

## **Test Subjects**

- Subject A: HH (male, age 43)
- Subject B: YH (male, age 66)
- Subject C: MW (female, age 44)
- Subject D: CS (female, age 63)
- > Test Year: 2005

# Setup for the First Set of Experiment



# Setup for the 2nd Set of Experiment - Magnetic Coil



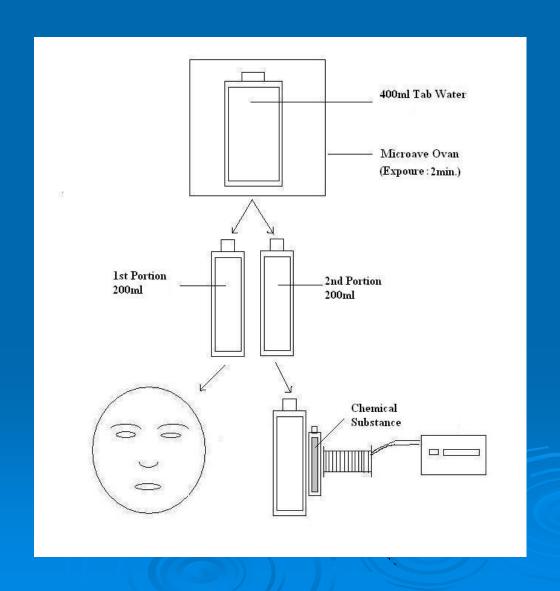
# Setup for the 2nd Set of Experiment – Red Laser



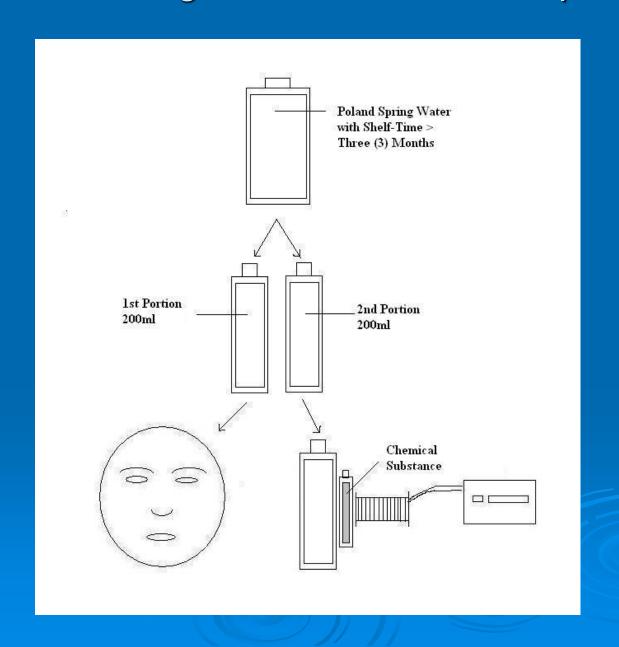
# First Set of Entanglement Verification Experiments



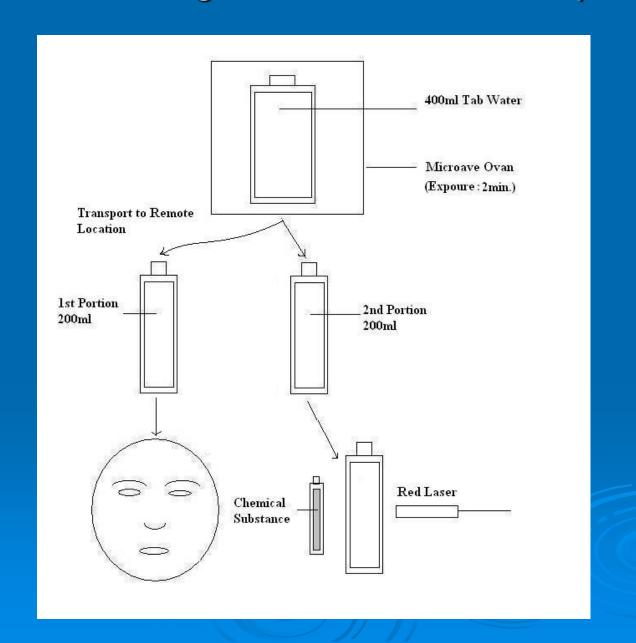
# 2nd Set of Entanglement Verification Experiments



# 3rd Set of Entanglement Verification Experiments



# 4th Set of Entanglement Verification Experiments



**Table 1.** Summary of results obtained from the first two sets of experiments

>	1st Set	: Magn.	Coil 2nd	Set: Magn.	Coil I	_aser	Light	Flash	light N	licro	wave
>		Test#	Effect	Test #	Effect Te	est# E	effect T	est# I	Effect Te	est#	Effect
	Anesthetics										
	Subject A	13	Yes	16	Yes	22	Yes	8	Yes	3	Yes
>	Subject B	2	Yes	2	Yes	3	Yes	0	N/A	1	Yes
>	Subject C	2	Yes	6	Yes	6	Yes	0	N/A	1	Yes
>	Subject D	2	Yes	1	Yes	5	Yes	0	N/A	0	N/A
Medications											
>	Subject A	17	Yes	14	Yes	16	Yes	1	Yes	3	Yes
>	Subject B	1	Yes	1	Yes	3	Yes	0	N/A	2	Yes
	Subject C	3	Yes	1	Yes	4	Yes	0	N/A	1	Yes
>	Subject D	0	N/A	0	N/A	3	Yes	0	N/A	1	Yes
	Control										
	Control										
	Subject A	12	No	5	No	11	No				
	Subject B	3	No	0	N/A	1	No				
	Subject C	1	No	2	No	4	No				

Subject D

N/A

0

1 No

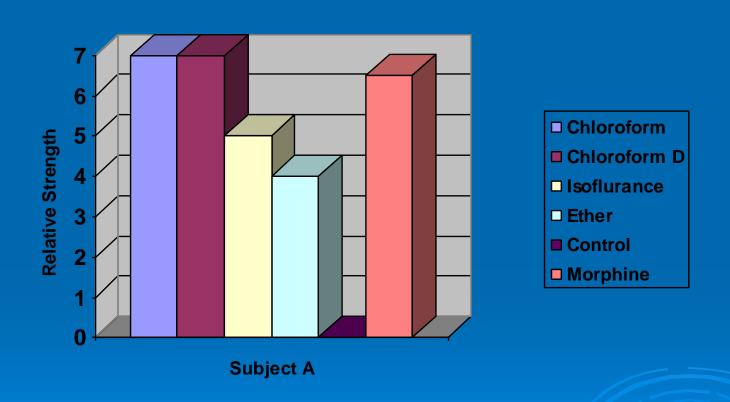
N/A

0

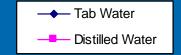
**Table 2.** Summary of the results obtained with the entanglement verification experiments carried out so far with chloroform, deuterated chloroform, diethyl ether and morphine.

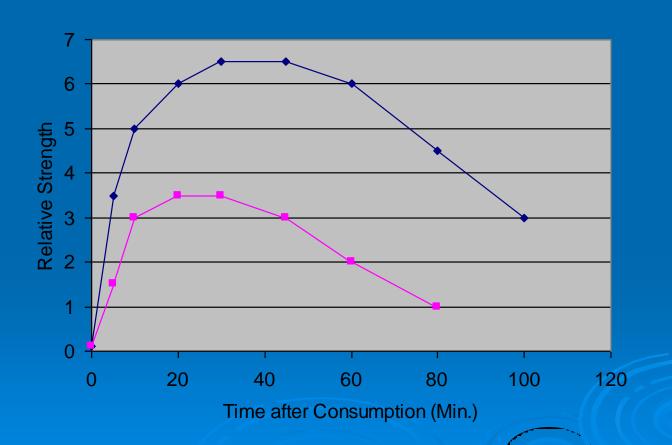
>	First Set			Second Set		Third	Set	Fourth Set		
>	-	Test# Effect		Test# Effect		Test#	Effect	Test# Effect		
>	Subject A	8	Yes	8	Yes	3	Yes	3	Yes	
>	Subject B	2	Yes	3	Yes	2	Yes	1	Yes	
>	Subject C	3	Yes	2	Yes	1	Yes	1	Yes	
	Control									
>	Subject A	2	No	8	No	3	No	3	No	
>	Subject B	0	N/A	3	No	2	No	1	No	
>	Subject C	1	No	2	No	1	No	1	No	

Figure 1. Illustration of Brain Effects of General Anesthetics and Morphine (tab water treated with magnetic pulses for 30 minutes)



**Figure 2.** Illustration of Brain Effect of Water Exposed to Morphine (tab water treated with magnetic pulses for 30 minutes)





#### First-Person Experience

produced by drinking 200ml tab water exposed to magnetic pulses for 30min in the presence of 20ml chloroform

- Within 10-15 minutes after consumption, felt gradually increasing brain effect as expansion and woodenness inside head and indescribable sickening sensation.
- Accompanied by stiffness in neck muscle, discomfort in stomach and throat, nausea, sneezing, eye ball pressure and pain and feeling of overall fatigue.
- These effects first gradually increased and then peaked between 30 minute to 60 minutes and then gradually weakened.
- However, residual effect much like hangover from heavy drinking would remain for more than 24 hours.

#### Is Quantum Entanglement the Cause of the Brain Effects?

### Likely, "Yes":

- With respect to the 2<sup>nd</sup>, 3<sup>rd</sup> & 4th sets of entanglement verification experiments, the only possible explanation for the brain effects experienced by the test subjects are that they were the consequences of quantum entanglement because the water consumed by the test subjects was never directly exposed to the magnetic pulses or the laser lights in the presence of the chemical substances under study.
- Other indications are: (1) the said inducing mean did not depend on the wavelengths of the photons generated; and (2) the order of interaction is irrelevant (mere interactions among the photons, a chemical substance and water will induce brain effects after consumption).

# How to Explain the Brain Effects

- The brain effects in the first set of experiments were the consequence of quantum entanglement between the quantum entities in the brain and those in the chemical substances induced by the magnetic pulses.
- The brain effects in the second sets of experiments were the consequences of quantum entanglement between the quantum entities in the chemical substance and those in the water induced by the magnetic pulses or applied light and the subsequent physical transport of the water entangled with the said chemical substance to the brain and entanglement of the quantum entities inside the brain with those in the consumed water.

## Summary of Our Findings

- Temperature & pH of water in a detecting reservoir quantum-entangled with water in a remote reservoir changes in the same direction as that in the remote water when the latter is manipulated under the condition that the water in the detecting reservoir is able to exchange energy with its local environment.
- The weight of water in a detecting reservoir quantum-entangled with water in a remote reservoir can change against the gravity of its local environment when the latter was remotely manipulated.
- Thus, we likely realized non-local signaling using changes in temperature, pH & weight. Perhaps the most shocking is our demonstration of Newton's instantaneous gravity and Mach's instantaneous connection conjecture and the relationship between gravity and quantum entanglement.
- ------
- Applying magnetic pulses to the brain when an anesthetic was placed in between caused the brain to feel the effect of said anesthetic as if the test subject had actually inhaled or ingested the same.
- Drinking water exposed to magnetic pulses etc. when an anesthetic was placed in between also causes brain effects in various degrees.
- The brain effects are likely the consequence of quantum entanglement.

# Do These Results Support Our Spin-Mediated Consciousness Theory

YES, because the quantum entities responsible for the observed brain effects and physical effects are likely nuclear/electronic spins inside the brain or physical system - Water.

- > The magnetic pulse mainly interact with nuclear/electronic spins.
- Neural membranes and proteins contain vast numbers of nuclear spins such as <sup>1</sup>H, <sup>13</sup>C, <sup>31</sup>P and <sup>15</sup>N which are the natural targets of interaction with electromagnetic fields.
- Nuclear/electronic spins form complex spin networks inside the brain which are modulated by the action potentials.
- Spin has been shown responsible for all quantum effects in both Hestenes & Bohmian pictures of quantum mechanics.

#### Implications of Our Experimental Findings

- The properties of all matters can be affected non-locally through quantum entanglement mediated processes.
- Both classical and quantum information including biologically meaning information can be transmitted between locations of arbitrary distances through quantum entanglement.
- Instantaneous signalling is physically real but does not conflict with Einstein's relativity in the framework of the Principle of Existence.
- Consciousness such as awareness & other biological processes likely involve quantum information - Nuclear and/or electronic spins likely play important roles in these processes. Quantum information may drive bio-systems to a more ordered state against the disorderly effect of environmental heat.
- These findings provide important new insights into the essence and implications of quantum entanglement. They also suggest a unified framework for explaining many paranormal and/or anomalous effects such as telepathy, telekinesis and homeopathy.

### Some Applications of Our Experimental Findings

These findings enable various quantum entanglement technologies be developed:

- Some can be used to deliver on site or from remote locations of arbitrary distances the therapeutic effects of many drugs to various biological systems such as human bodies without physically administrating the same to the said systems. Of course, any substances of nutritional and recreational values can be repeatedly administrated through these technologies.
- Some can be used to manipulate and/or affect remotely various physical, chemical and/or biological systems including human bodies.
- Some can be used for non-local signaling and communications between remote locations of arbitrary distances in various ways.
- Potentially, some can also be used to engineer the gravitational properties of physical matters. Others can be used to entangle two or more human minds for legitimate and beneficial purposes.

# The Need of Independent Replication

- Independent replications are the key to confirm our results reported here. So far, there have been indirect verifications from Persinger's research group.
- These experiments are simple and even "primitive" (but the results and implications are profound).
- So, please do your experiments.