

# BEYOND THE MOLECULE: Supramolecular Chemistry and Homeopathy

Theory

Evidence

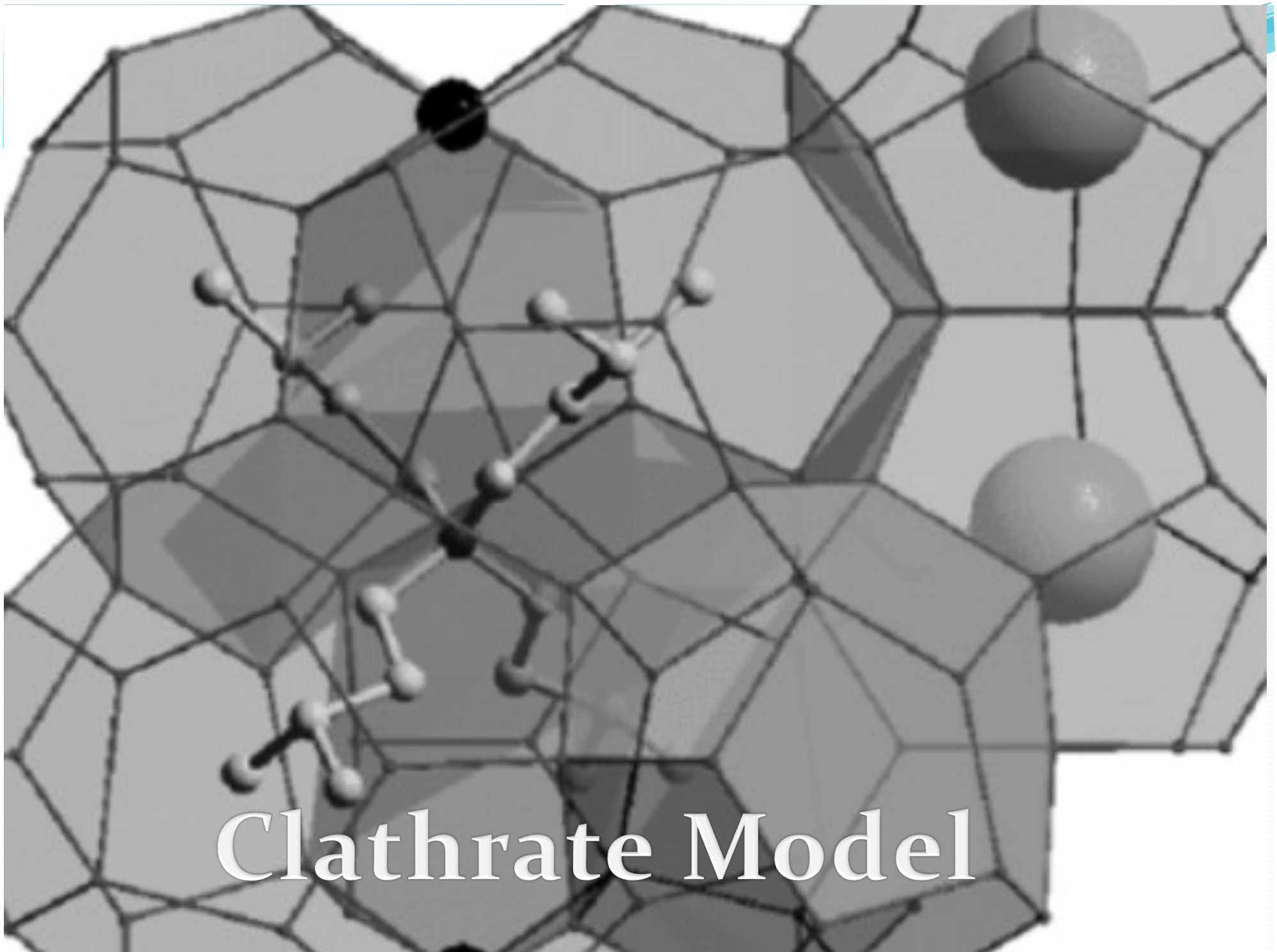
Structure

Action

Physical

Biological

ACTION



# Water Molecule

ELECTRONS

ELECTRONS

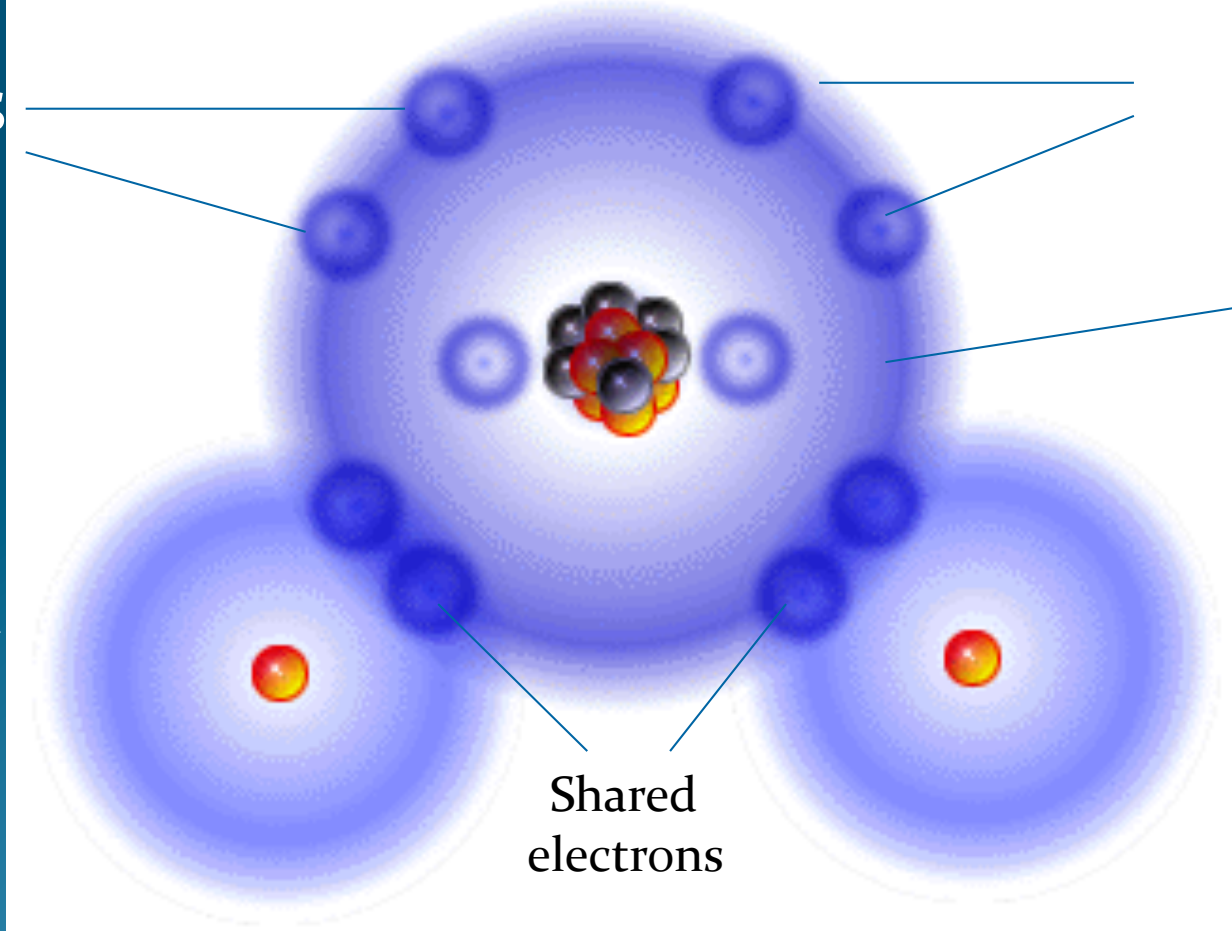
OXYGEN  
ATOM

HYDROGEN  
ATOM

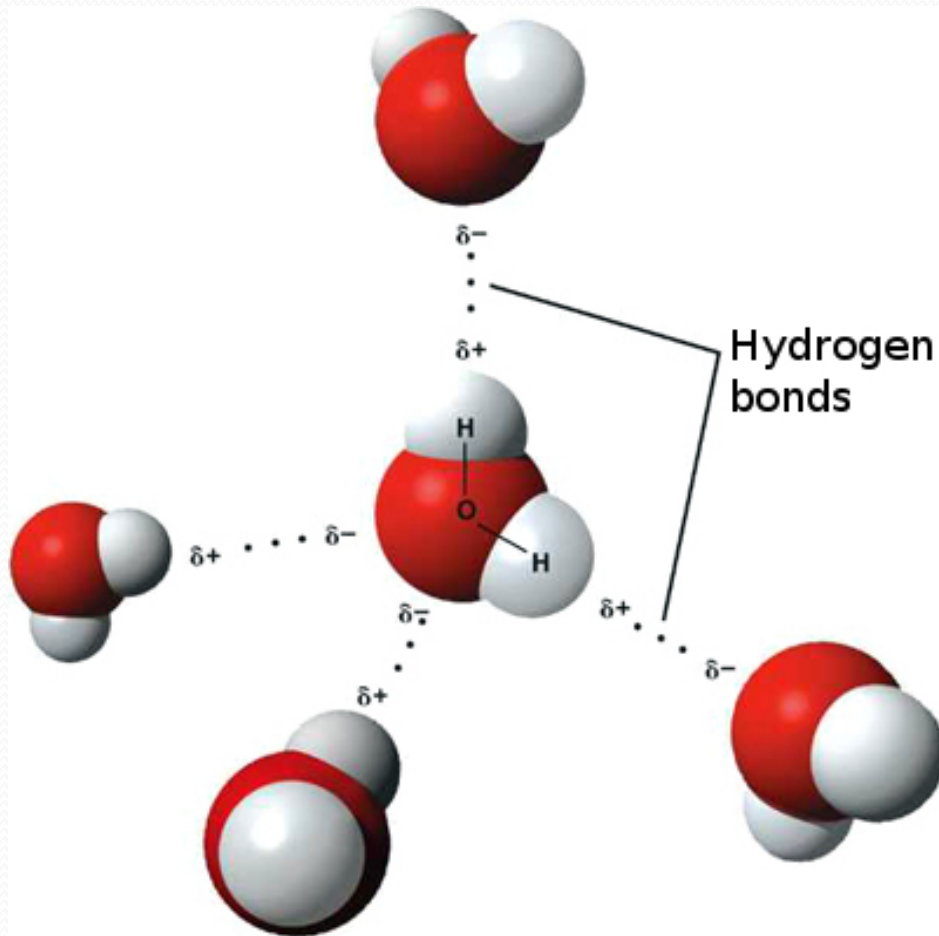
HYDROGEN  
ATOM

Shared  
electrons

$\text{H}_2\text{O}$  = 1 oxygen, 2 hydrogen atoms

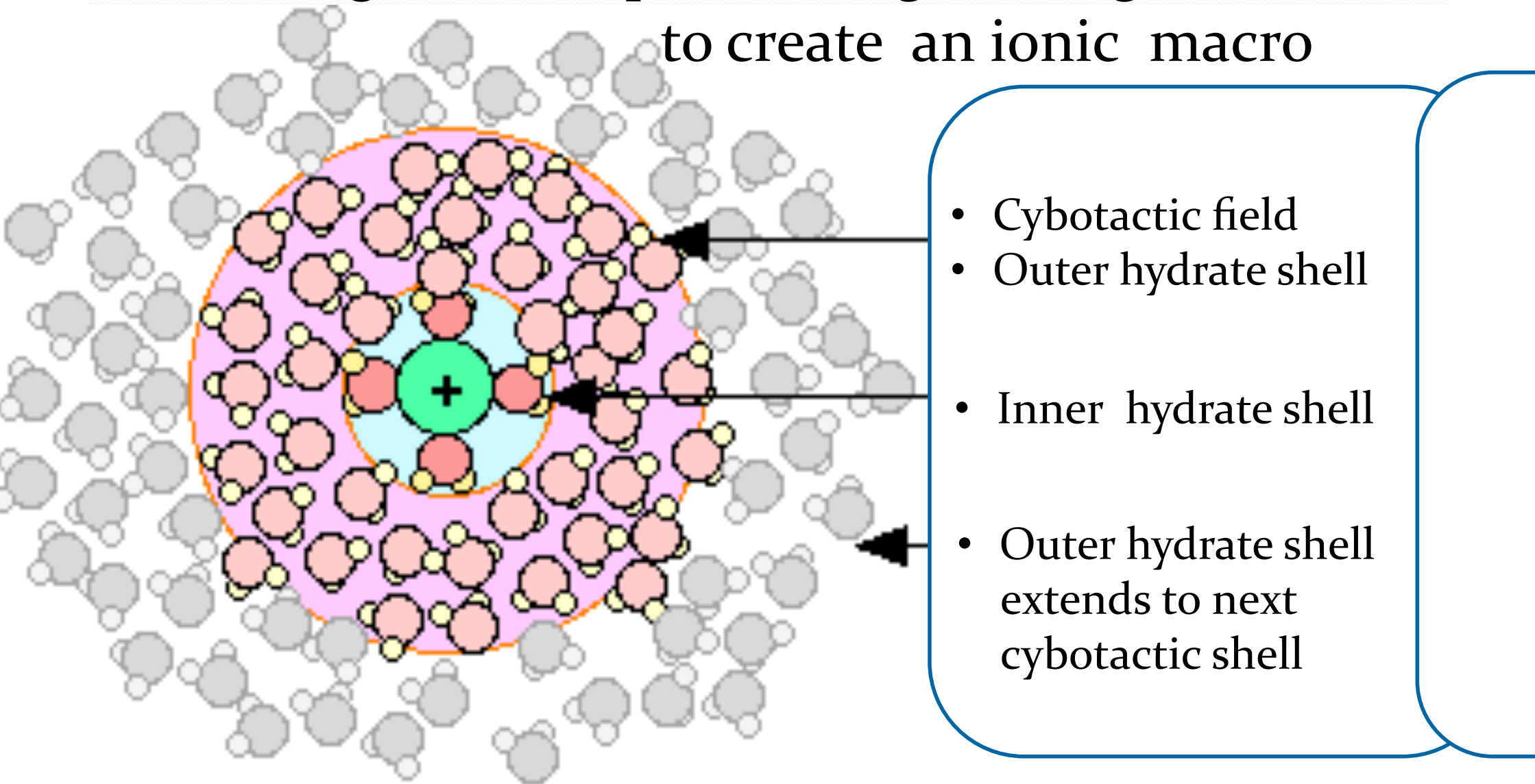


# H<sub>2</sub>O qualities

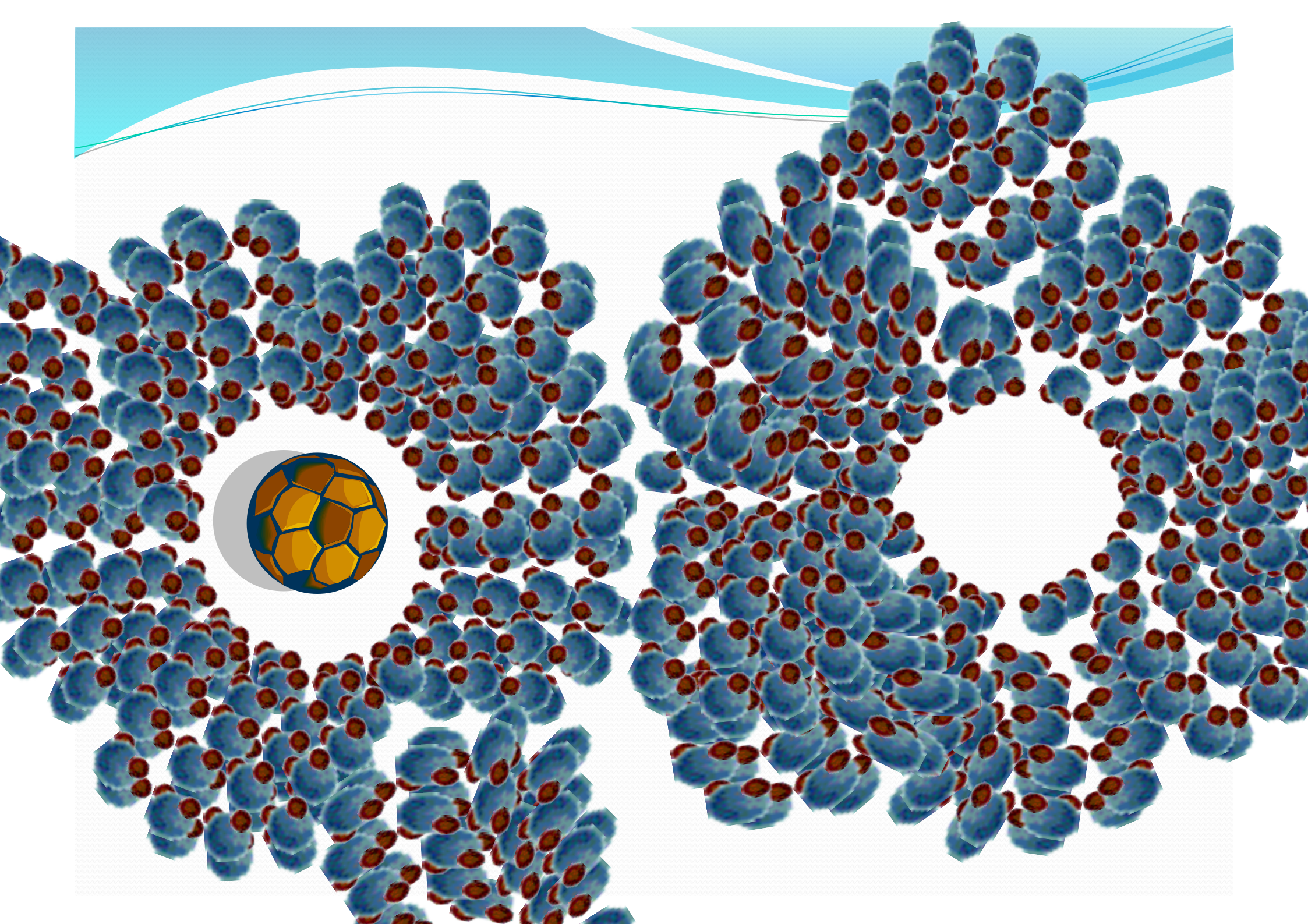


- The water molecule is a small molecule.
- Oxygen=sharp, H<sub>2</sub>O penetrates, universal solvent.
- Oxygen atom is analogous in shape to a tetrahedron, which gives it four connecting joints.
- Two of these connections hydrogen atoms are bonded, which gives the water molecule a positive and negative end.

Water molecules form around an ion according to its shape and magnetic signature to create an ionic macro



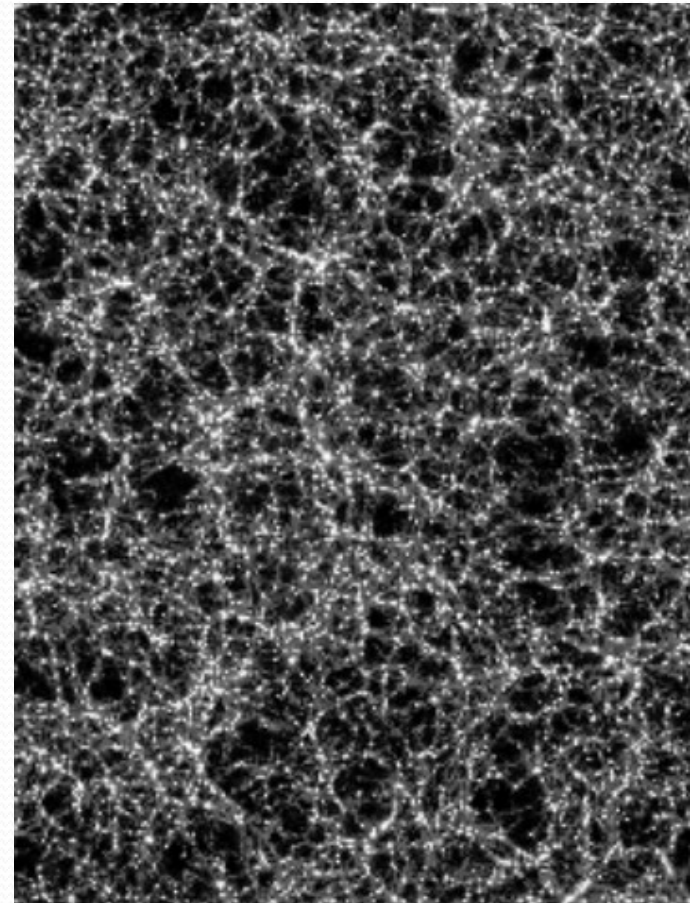






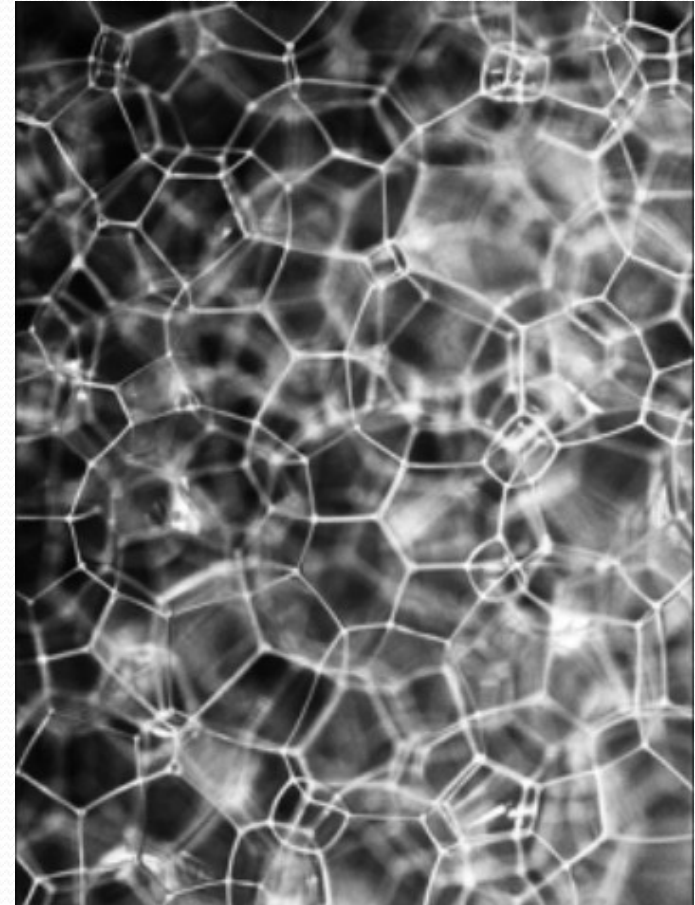
# 2010 scientific anniversary

- 200<sup>th</sup> year anniversary of Avogadro's Constant (1810)
- Davy and Farraday recorded evidence of liquid aqueous structuring (1810)
- Mendeleev observed aqueous structuring
- 1910 Johannes van der Waals wins the Nobel prize for his description of intermolecular forces, what holds this aqueous structuring together.



# Clathrate hydrates

- 1940's named "clathrate" = "cage" or "lattice."
- Double Nobel laureate Linus Pauling speculated clathrates have biological effects
- 1950's French researchers Gay and Boiron discovered homeopathic solutions have dielectric stress indices
- 1960's Barnard - intermolecular forces key to liquid structuring.
- 1990's Anagnostatos proposes Clathrate Model





# Electromagnetic Signals Are Produced by Aqueous Nanostructures Derived from Bacterial DNA Sequences



Luc Montagnier, winner of the Nobel prize for Science and Medicine

- Identifies both structure and EM signal from high dilute
- Identifies “cross talk”
- Validates homeopathy physically and electromagnetically
- Vindicates Benveniste



## Electromagnetic Signals Are Produced by Aqueous Nanostructures Derived from Bacterial DNA Sequences

- **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.



## **Electromagnetic Signals Are Produced by Aqueous Nanostructures Derived from Bacterial DNA Sequences**

- Signal producing dilutions usually ranged from  $10^{-8}$  to  $10^{-12}$ , with profiles upon Fourier transformation
- In one experiment, some very high dilutions were found positive, ranging from  $10^{-9}$  to  $10^{-18}$ .
- Filtration demonstrated aqueous structures had a size greater than 20 nM and lower than 100 nM.
- Why were the lower dilutions “silent?”
- Silent low dilutions maybe self-inhibitory from interference of multiple sources emitting same wave length or slightly out of phase, like radio jamming . . or the abundance of nanostructures can form a gel in water and therefore are prevented to vibrate.



# Evidence for homologous “cross talk” between dilutions

- Is it possible wave transfer to generate new signal-emitting structures from tube to tube?
- A tube of a low “silent” dilution of E. Coli ( $10^{-3}$ ) was placed side by side close to a receiver tube of the positive “loud” highest dilution of the same preparation ( $10^{-9}$ ). Both tubes were placed in a mumetal box for 24 hours at room temperature, so that the tubes were not exposed to external electromagnetic noise, and only exposed to the signals generated by the structures present in the tubes themselves.
- Tubes were read again by the signal detecting device: the donor tube was still silent, however the receiver tube became also silent.

## #2 Evidence for homologous “cross talk” between dilutions

- When further dilutions were made from the receiver tube (10<sup>-10</sup>, 10<sup>-11</sup>, 10<sup>-12</sup>), these dilutions had become positive. These results suggest that the receiver tube was made silent by formation of an excess of new nanostructures, which could emit signals upon further dilution.
- Surprisingly, the range of positive dilutions were not strictly dependent on the initial concentration of *E. Coli* cells, being roughly the same from 10<sup>9</sup> cells down to 10 cells, suggesting that the same final number of nanostructures was reached at all concentrations. Thus, paradoxically, 10 cells are giving the same signals than 10<sup>9</sup> cells.

# ALL HOMEOPATHIC STUDIES ARE FOR VERUM!

- NO EVIDENCE FOR PLACEBO!
- NO PROTOCOL FOR PSYCHOGENIC TESTING
- VERUM TWISTED, DISMISSED, DENIED OR REINTERPRETED TO ASSERT PLACEBO
- PRE-CLINICALS DESTROY PLACEBO HYPOTHESIS



Lilli Kolisko



# Evidence of action

- Pre-clinical & clinical evidence cannot be reasonably denied.
- 200 years clinical, common use , clinical reports should be convincoing of efficacy.
- Prima facie composition of the substances used contradicts common sense of biological action.
- Critics assume users of homeopathic are unaware of lack of active molecular content & conclude that effects are psychogenic.



William E. Boyd, M.D.

“The Biological and Biochemical Evidence  
for the Homeopathic Remedy,”  
Boyd, 1954

# Homeopathic myths



- “There is no science to back up homeopathy.”
- “There are no double blind trials for homeopathy.”
- “Homeopathy is fraud”
- “Homeopathy doesn’t work.”
- “Liquid water can’t structure”
- When there aren’t molecules of the active agent left in solution there can’t be biological effects. (Ennis)
- Homeopathy is a placebo”

# Biochemical studies

- HomBRex database specializing in homeopathy research as of February 2009 contained 1301 experiments in 997 original articles including 1172 biological studies.
- Witt 2007 established criteria for evaluating homeopathic research: Score for Assessment of Physical Experiments on Homeopathy (SAPEH)
- SAPEH scored each test 1 -10: Objectives, controls, blinding, randomization, consistency, experiment standardization, statistics and results
- Witt evaluated 67 experiments (1/3 of them replications).
- 3/4 found effect,
- Nearly 3/4 of all replications were positive.



# Six types of biochemical (in vitro) tests for homeopathy 1932-2005

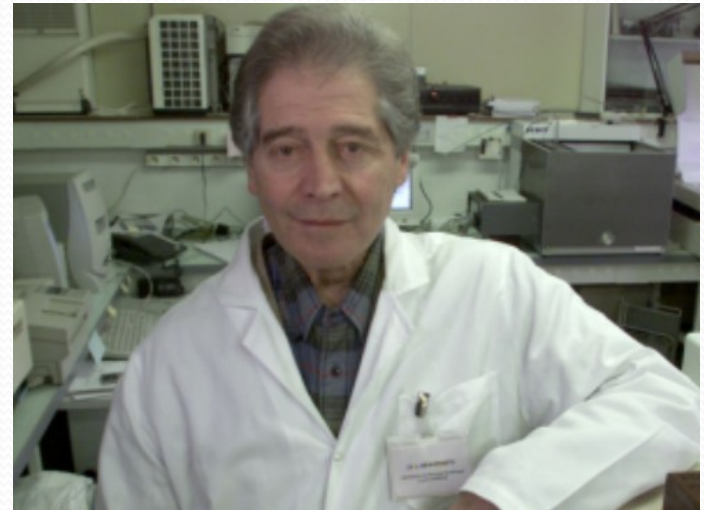


Eugene Kolisko

- Non cellular systems – 17: 15 positive, 2 negative
- Cultured cells – 13 : 5 positive , 8 negative
- Erythrocytes – 2 positive
- Basophile granulocytes – 28 : 23 positive, 5 negative
- Neutrophile granulocytes – 2 : 1 positive, 1 negative
- Lymphocytes – 4 : 3 [positive, 1 negative]

# Basophil degranulation test

- First introduced by Murietta in 1985
- First successful degranulation, Poitevin, 1985
- First reproduction by Sainte Laudy and Belon 1986
- Davenas, 1988, Nature article, first widely publized results in a major science magazine.
- Benveniste 1991 ninth positive replication
- Belon, Ennis et al 1999 multi centered trial
- Sainte-Laudy, Belon “Inhibition of basophil activation by histamine: a sensitive and reproducible model for the study of the biological activity of high dilutions
- Ennis calls for new multi cnetered test



Dr. Jacques Benveniste

# Social dimensions

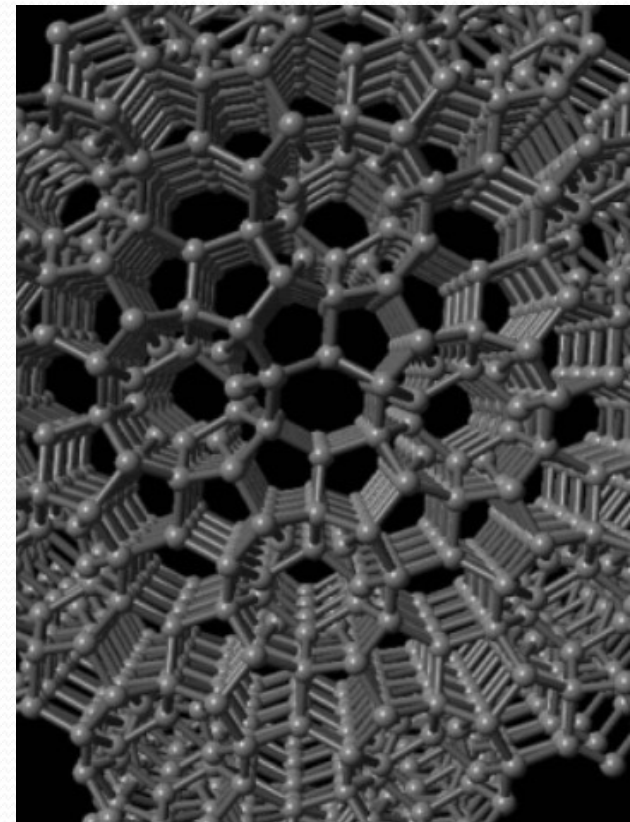


Dr. Samuel Hahnemann,  
Our Founder

- World's most prevalent modern internal medicine
- Second only to traditional Chinese in usage
- Founder left behind doctrine of work that treats anyone with any problem
- 100,000 case notes,
- Expanding materia medica
- Widow less than half his age.
- Not solely psychogenic (placebo) so we have to look to physical causes for the answer.

# Two types of chemistry

- Traditional chemistry, used by the big pharmaceutical companies to create modern patented drugs.
- Second chemistry known only fifty years, supramolecular chemistry.
- Branch of chemistry that explains homeopathy.
- The missing link to the science of homeopathy.
- The best explanation for the homeopathic remedy.
- Supramolecular chemistry is the study of an organization of two or more molecules held together by intermolecular forces.





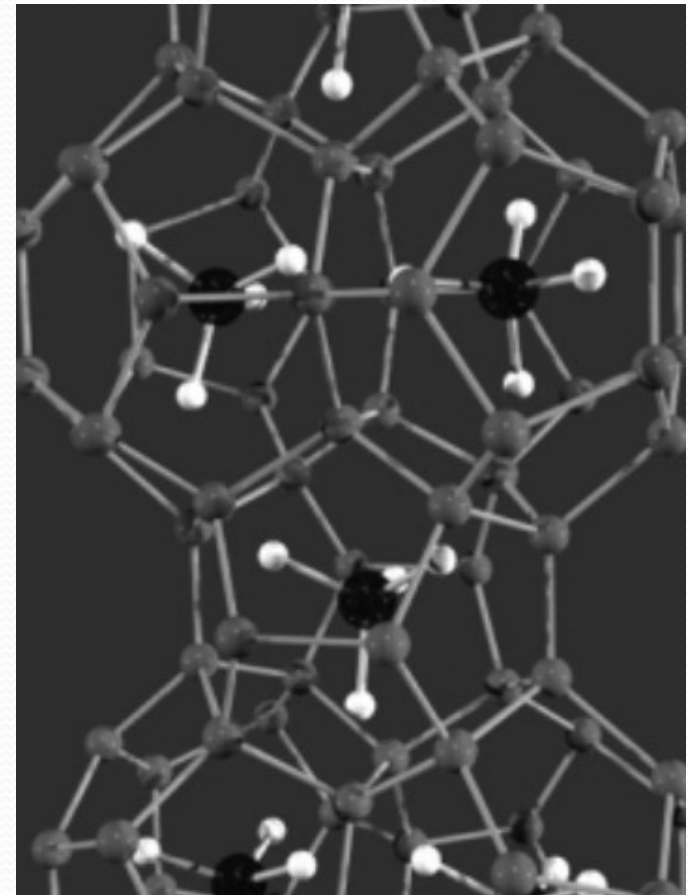
# Supramolecular chemistry



- Supramolecular chemistry = best explanation for homeopathy.
- Supramolecular chemistry is the study of an organization of two or more molecules held together by intermolecular forces.
- Supra means “beyond.” Supra molecular means “beyond the molecule.”
- Fits homeopathy beautifully: homeopathic substances are “beyond the molecule.”

# The Clathrate Hydrate

- Clathrate is the active ingredient of the homeopathic remedy
- Clathrate model now validated by the material sciences
- Roy 2005 Structure of Liquid Water; Novel Insights from Materials Research; Potential Relevance to Homeopathy
- Profs Rick Hoover of Penn States material sciences dept; Iris Bell, MD, University of Arizona's dept . of psychiatry, Professor Emeritus Rustum Roy.
- Roy's most comprehensive presentation for liquid aqueous structuring as the basis for the homeopathic remedy.
- Specifically names the clathrate



# Clathrates go by many names

Chakras

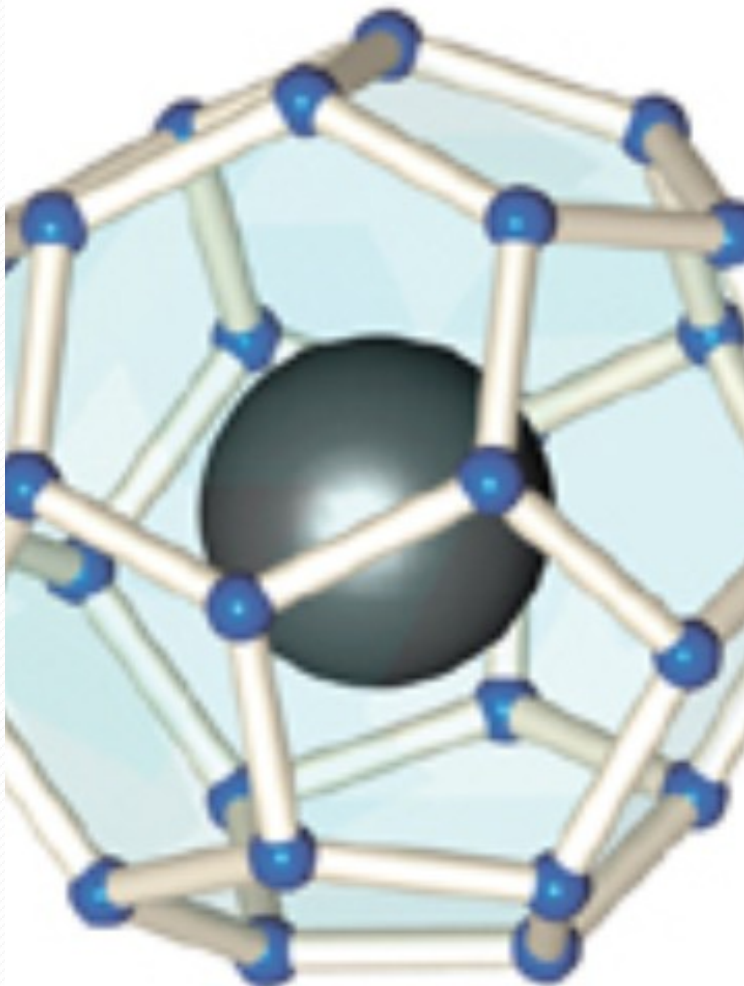


TREE OF LIFE

- **Clathrate hydrates** are also called gas clathrates or gas hydrates, inclusion molecules or cage molecules.
- Clathrates are forms of structured water, crystalline water based solids that look like polyhedral ice crystals. Molecules trapped inside hydrogen bonded crystalline water cages
- Formed through host guest process



# Biological effects and physical properties of clathrates



- The world's only person to win 100% of two Nobel prizes, chemist Linus Pauling, claimed clathrates are what give alcohol its narcotic effect.
- A recent American-Russian study revealed that the taste in alcohol is due to its clathrate content and were able to measure the difference between lower and higher priced vodka.
- The battery industry is studying their use as anodes.
- Clathrates are being studied as superconductors because the hollow cage structure conducts little heat



# Traditional vs. supramolecular chemistry



Rare photo of clathrates forming around contaminants in the atmosphere. Also called parhelia, sun dogs or the Eye of God

- Traditional chemistry focuses on covalent bonded material
- Covalent bond, atoms share electron, locks atoms together to become molecules
- Patent medicine uses covalent bond to synthesize petro chemicals for medicine
- Homeopathic medicine uses hydrogen bond to create the substances it uses as medicine
- Supramolecular replaces covalent bond with intermolecular forces, i.e. hydrogen bond
- To understand how clathrates form and how they create their biological action, we have to take a look at the water molecule.

# How Water Structures



1. The Hydrogen Bond
2. Ionic Structuring
3. The Host/Guest Process
4. Clathrate Hydrates
5. The Nanobubble - Air Nucleation & Mimicry

# Theory supported by 200 years of direct observation by science



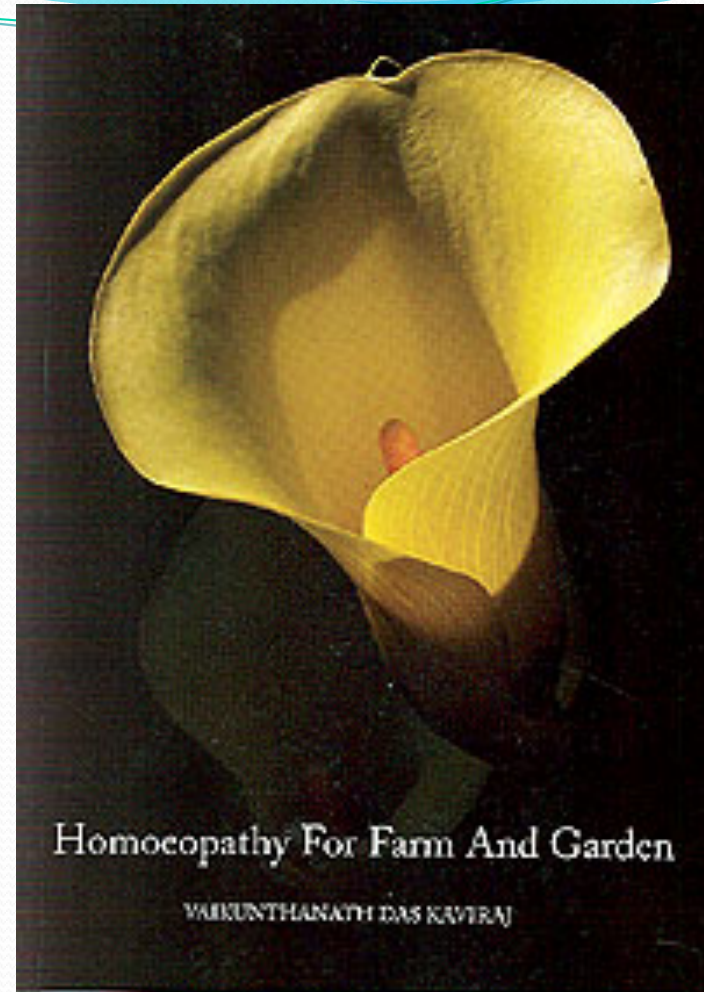
Sir Humphry Davy, first described the clathrate in 1810

- We know liquid aqueous structuring exists from 200 years of direct observation (Davy, Farraday, Mendeleev, Sukul, Rao, Roy, Tiller, Montagnier et al et al)
- The tetrahedral shape and dipolar charge make H<sub>2</sub>O molecular self-assembly inevitable. Water has to structure.
- The strength of the hydrogen bond can be seen in surface tension, strong enough to float a paper clip.
- H<sub>2</sub>O structuring will conform to exogenic forces
- Ionic contamination, in the host guest process, concentrates H<sub>2</sub>O into clathrate hydrates, crystalline structures that gridlock around ions, imitative of their charge and structure.
- Ionic nucleation is replaced by air nucleation, what Roy calls "nanobubbles."



# THE GREAT PROVING

HOMEOPHYTOPATHOLOGY: The  
use of homeopathics for plants

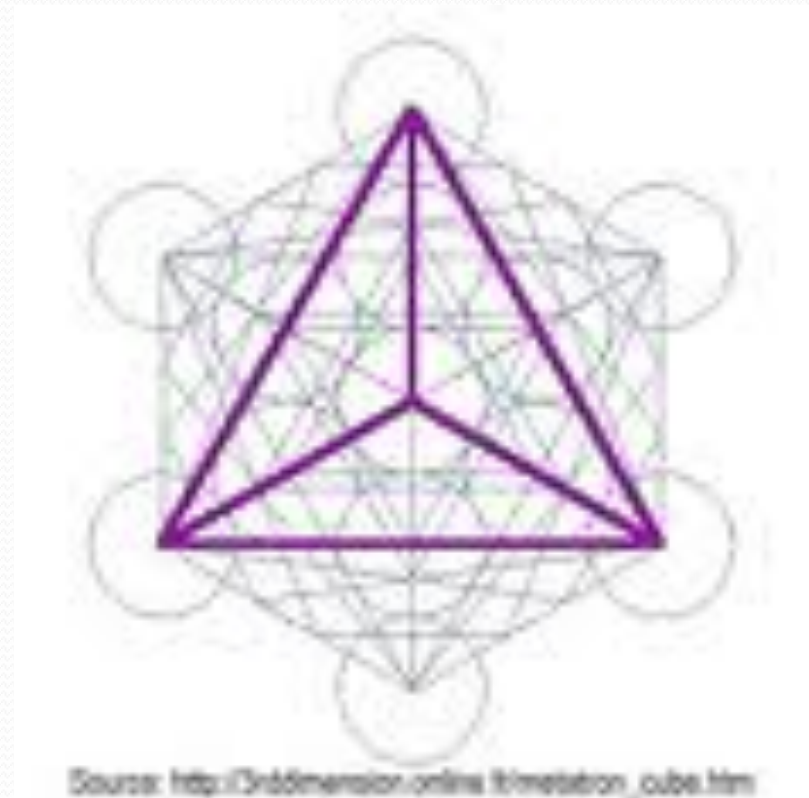


**HOMEOPATHY FOR FARM  
AND FARM AND GARDEN by  
Vaikunthanath das Kaviraj**



# Structure of the remedy

- Water molecule tetrahedral in shape
- Basic universal building block
- Small enough to enter lattice work of compounds and attach itself to their positive or negative ions
- H<sub>2</sub>O's assemble according to the ion's shape and charge

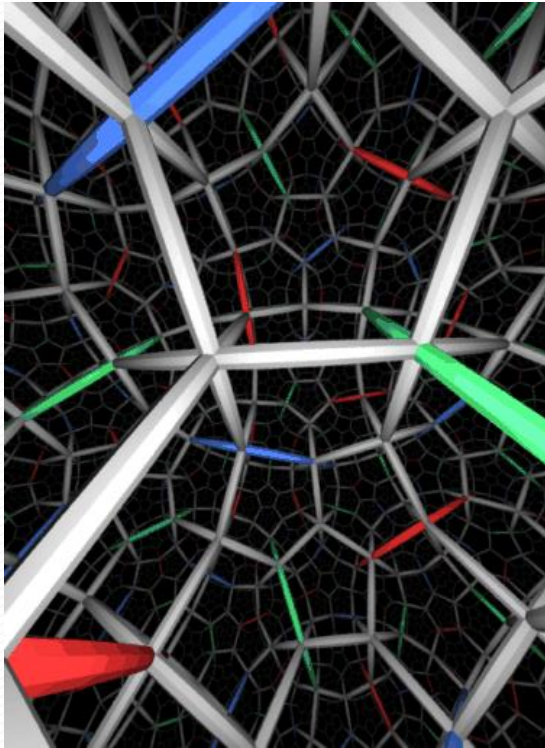


Source: [http://3rdimensiononline.com/illustration\\_cube.html](http://3rdimensiononline.com/illustration_cube.html)

# Structural gridlock

- Water structures are made via the hydrogen bond, not the covalent bond.
- Hydrogen bond = 9 nanoseconds
- Opponents say, liquid aqueous structuring then, can last only briefly
- BUT . . What is the duration of separation? Structure is gridlocked!
- Where does the connection go next? IT SIMPLY RETURNS!
- Liquid aqueous structures are vibrating.

# Host guest process



- Molecular self assembly
- Water will naturally structure when it is given something to structure around.
- Nucleates around the smallest hydrophobic unit
- Ionic nucleation is replaced by air nucleation during succussion, what Roy calls nanobubbles.
- The entire solution is influenced by the structure. No water molecule goes untouched in the solution
- When guest molecules thin out in dilution, they are replaced by supramolecular structuring



# How Nat Mur is made - dilution

- When salt is added to water, the smaller H<sub>2</sub>O molecules seep into the lattice work of the compound
- Negative poles of H<sub>2</sub>O molecules are attracted to the positive charge d Na<sup>+</sup> ion, and the positive poles to the negative charged Cl<sup>-</sup> atom to form the inner hydration shell
- A second organized field of organization, the cybotactic region, forms around the inner hydration shell
- Organization continues outward to the closest magnetosphere





# How Nat Mur is made - succussion

- During succussion, atmosphere is introduced into the solution and pressurized
- Hydrogen bonds intensify around atmosphere
- Surface tension in water from hydrogen bonding strong enough to float a paper clip



# Transitional nucleation

- The five transitional states, from quintessence (ether) to fire, from fire to gas, from gas to liquid, from liquid to solid matter and back, is continuous - Johannes van der Waals, Nobel prize for intermolecular forces, 1910
- Intermolecular forces control the material characteristics of all phases of matter.
- In the homeopathic supramolecular solution, ionic particle nucleation is replaced by a ionic air nucleation

# 12 physical tests

1. Dielectric strength: 6
2. Galvanic effects 5
3. Light absorption spectra: 4
4. NMR: 18
5. Raman spectroscopy: 7 .
6. Black boxes: 4
7. Gas discharge visualization 1
8. Polarized photography 1
9. Beta scintillation 1
10. Radio reception 2
11. Thermoluminescence 1
12. Capillary action



# What's next?

## PHOTONIC HOMEOPATHY

- Delivering the remedy via light
- Shining a light through argentum metallicum conveyed its anti-bacTerial qualities to the receptor
- Introduced in “On Chemical Medicine, Thermodynamics, and Homeopathy” by Prof. William Tiller of Stanford University





# Question

*What physical characteristic  
of the homeopathic remedy  
controls potency?*



# Answer

PROPOSAL: Dilution increases the frequency, resolution coherence of the signal. Succussion increases it's amplitude



# Question

*What gives the  
homeopathic  
remedy its  
biological action?*



# Answer

Answer: The electromagnetic signal.

Propsoal: Lower frequency signals from covalent bonded matter have a shorter broadcast range and talk to the system on a localized basis. The disease state arises from trying to act on a localized basis. The lower signals drown out the higher source signals. In the homeopathic remedy the lower source signals have been removed by dilution, and the higher signals of the source replicated and amplified,. The body recognizes the disease state systemically from the higher signal





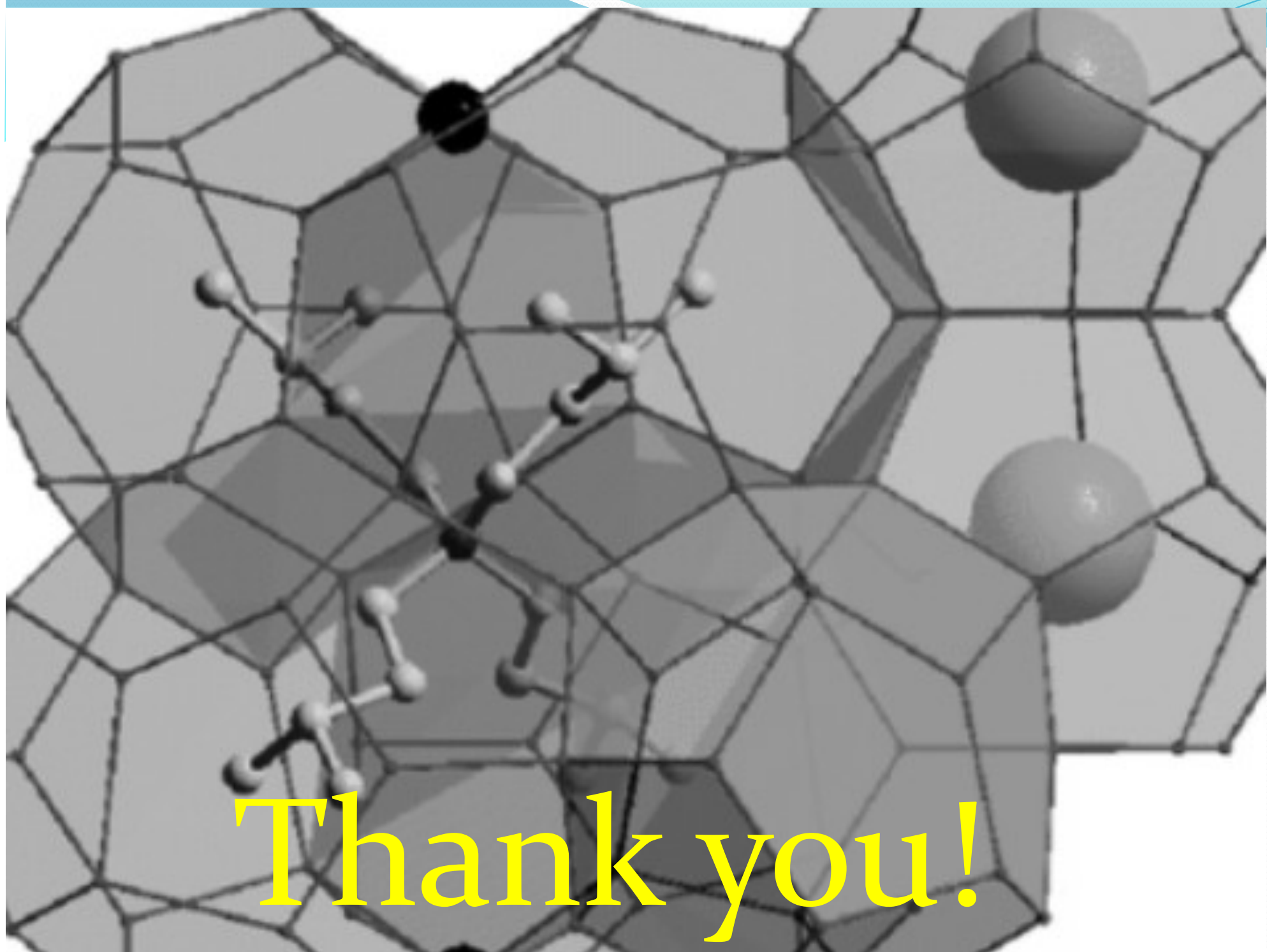
# Question

*If a skeleton comes to you  
to be cured of alcoholism,  
what remedy do you give  
him?*



# Answer

Pulsatilla and a mop.



Thank you!

# Special thanks to Dr. Shashi Sharma and the Hahnemann College of Homeopathy

*Beyond the Molecule 2010*  
with John Benneth