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PROOF OF ION TRANSPORT DUE TO APPLICATION OF QRS SYSTEM SALUT-II

1. At the Medical University in Szeged, at the Institute of analytical pharmacy, tests were carried out from 30.5.99 until 27.10.99.
   There it was shown that in the blood of Turkeys, which is more or less like human blood, by using Salut-II as a full body application for two weeks for 2-hours per day (exactly as in therapy), the following changes occurred in the body's dominating free moving ion concentration:

	Na+ (mg/l)	K+ (mg/l)	Ca++(mg/l)
Treated (P)	3815	126	123
Control (K)	3593	157	111
Difference (Δ)	+222	-31	+12
Difference in (%)	+5.8	-24.6	+9.8

(Measured with an atomic absorption-measuring instrument: Perkin-Elmer AAS4100)

For movement of ions a force of

$$F_e = Q - E = Q(E + v\text{-}B)$$

Q = Electric Charge……..As
E = Electric Field Strength…...V/m
v = Velocity (Speed of ions)…m/s

is necessary.

In the bodies of treated people the mean value of parameters produced by Salut-II were calculated as follows:

$E \approx 2 \times 10^{-2}$ V/m (at $E_K \approx 10^5$ and $E_L = 2000$ V/m) as well as

$B \approx 3 \times 10^{-5}$T = 30 uT (peak measured with Radian f. BMM3).

The order of magnitude of the electromagnetic fields produced by Salut-II and the electric charge in the body cannot be disturbed by the Brownian (thermal) molecular movement.

Proof:

- Handbook of Biological Effects of Electromagnetic Field, CRC Press, Inc. Boca Raton, Florida (Editor Ch. Polk and E. Postow)
- Radiation, Waves, Fields Cause and Effects on the Environment and Health (Georg Thierne Publishing House, Stuttgart, New York, N. Leitgeb).

2. ELECTROPHORETICAL MOBILITY OF IONS

   Electrically charged particles (cells, ions) in an electric field will move according to polarity.
   The above ions, as well as erythrocytes have shown the following electrophoretical movement:

	Erythrocytes	Na+	Ca++	K+
Mobility B	1.27	5.2	6.2	7.6

(Measured with cytopherometer by Dr. Derlat at the Max-Planck-Institute)

It can be seen that the mobility of charged particles in the electric field is proportional to the electric charge and inversely proportional to the size of the particle.

The calculation follows the principal that the electric force (F_e) has to be greater than the restraining frictional force (Stokes).

$$F_e = Q - E \geq 6\pi\eta rv$$

where:

η = Viscosity of the environment
r = Radius of the particles
v = Velocity

Therefore the mobility is $B = \frac{v}{E}\left\{\frac{10^{-8}m^2}{v_s}\right\}$

The order of magnitude of the electromagnetic fields produced by Salut-II and the electric charge in the buffer cannot be disturbed by the Brownian (thermal) molecular movement.

Proof:

- Cell Electrophoresis a symposium convened by the British Biophysical Society (E.J. Ambrose in J.u.A. Churchill Ltd., London)
- Scientific Charts Geigy, Physical Chemistry, Blood, Human Genetics. (Publisher: Ciba-Geigy AG, Basel).

3. ASSESSMENT:
   1. Both the above measuring results in VIVO(1) as well as in VITRO(2) prove that the generation of ion transport through electromagnetic forces in the range of Salut-II, as in the treatment of experimenters, is possible, regardless of the Brownian molecular movement.

   2. Obviously the temperature of the free moving ions in the human body is always higher than total zero (-273°K) and will inevitably be accompanied by thermal movement.

3. But the dispersed thermal movement of ions is changed into a guided movement by means of electromagnetic forces (from Salut-II). By the way the Brownian thermal movement has no binding force and therefore no influence on ion transport.

4. The statement by Dr. V. Warnke, that only “energies” above 6.46THz (=$6.46 \bullet 10^{12}$Hz) have a biological effect, is in terms of frequencies nonsense. As it is well known that low frequencies with an appropriate amplitude are also biologically effective.

Proof:

- Theoretical Biochemistry Physical-Chemical Foundation of Life’s Processes (N.Nether, Springer Publishing House, Berlin, Göttingen, Heidelberg.
- Extremely Low Frequency Electromagnetic Fields (B. Wilson et al., Battelle Press, Columbus, Ohio).