Bioelectric Transfection and Transposon Bullet-High Relative Humidity: Poor Conductor and Efficiency of the Electrostatic Field

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Abstract— *The hallmark of transposon transfection in epidemiology is dependent on High Relative Humidity controlling permittivity and is high prevalence with CGG repeat-gene silencing and using antibiotic resistance marker genes in agriculture superior genes. Using the Review article method in analytical of physics law argumentation.*

Result: In various approaches of DNA molecule incl. CGG repeat and silencing, at different Relative Humidity (RH): A (90%); B (70%); C (50%) correlated with cell bioelectrical which become the etiologies of various diseases such as the Parkinson's syndrome, Alzheimer, autism, LGBTQA, hypospadias, CAH, etc. which is thought as usual cases in wet and warm countries. Several studies have shown that various kinds of diseases should be prevented in the future, and now has been done with hormone therapy, physical surgery, and mental exercise from early young ages. Therefore, this review addresses those transposons in terms of their prospects in nano-transfection which change the metabolism of brain signaling and physical structure due to enzymatic failure function deficiency/blocking/mutation/polymorphism.

Conclusion: In addition, the need for safety and defense of green activity in Industry 4.0, which affects on electrostatic theory describes the epidemiology of transposon transfection in health laden in the population of 'steam bath' High Relative Humidity climate area due to high capacitance, poor conductance and efficient electrostatic fields. This study is the first to reveal noncommunicable diseases as transposon transfection.

Keywords— Mobile Genetic Elements (MGEs), Permittivity, Dielectric constant, Electrostatic fields, Capacitance, Conductance.

I. INTRODUCTION

DNA/RNA transfer among different species is known as transfection. The optimal condition for cell transfection in the laboratory is always to keep Humidity at 100%, the highest high relative humidity (HRH), t=37°C, and CO_2 concentration 5-10%. In nature it is happens only in Tropical Rainforest Areas (TRfA) and Nordic areas at night but not in dry and hot countries, and dry and cold countries.[1] Biodiversity is high in wet n warm countries, and RNA act as an anionic nano-bullets. Epidemiology reported LGBTQA[2] crisis and Sepsis crisis[3] meets Food crisis, Energy crisis, and Economic Crisis in G-20 Indonesia Presidential November 2022. Electrostatic field and Mobile Genetic Elements (MGEs) act as anion that should be disseminated to industrial countries, which are in a dry and cold climates and neglected the wet and warm climate area health,[2,3,4,5,6] as be the lung of the world in the green activity of 4.0 industry.[3] This study reviews the article on DNA plates' bioelectrical law in wet vs. dry area.

This study aims to determine Carbon Blue for the 'Sauna' Climate area & Blue Economy Gunter Pauli for the 'Steam bath' Climate area in the corridor of Electrostatic field-HRH.

The difference of harm Green activity vs. clean Blue Economy Gunter Pauli for 'Steam bath climate area, as water has high dielectric Constanta. The electrostatic theory describe the epidemiology of transposon transfection in the population of 'steam bath' Tropical Rainforest climate area which should be known by public policy negotiator.

II. MATERIAL & METHOD

Review article in analytical of physics law argumentation

III. RESULT

An intracellular movement of DNA that randomly 'jump' in genomes and can 'hop' into phage or plasmids is a transposon. The increasing HRH (wet), and increase in the value of the permittivity at terahertz frequencies similar to Infra Red absorption in Tropical Rainforest Area (TRfA), and Nordic area while the sunshine is rich. While Mobile Genetic Elements (MGEs) act as an anion, the material between 2 DNA plates play a role as a semiconductor and act as a capacitor. Dielectric constant decrease drastically with water permeable core. DNA as poor metal has a highly resonant owing to a drastic increase in the value of the permittivity at terahertz frequencies.

IV. DISCUSSION

Gene therapy is the process of introducing foreign genomic materials into host cells, with or without a vector, to elicit a therapeutic benefit. It can also happen in nature and this discussion would make this knowledge to understand why and how to prevent variables diseases incl. cytotoxicity, immunogenicity, mutagenesis, metabolomics error-laden in wet and warm climate countries such as sepsis, LGBTQA, FXTAS, The Parkinson syndrome, Alzheimer, Autism, Hypospadias, CAH, etc. due to RNAi-CGG repeat.[2,3,4,5,6]

Dysregulated RNA metabolism has emerged as an important contributor. Expanded repeat RNAs form RNA foci, sequestering various RNA binding proteins and consequently altering RNA splicing, transport, and other downstream biological processes.[7]

4.1 Transposon gun and electroporation

Mobile Genetic Elements called a transposon and is transfected by electroporation, sonoporation, laser optoporation, etc., are in efficient ectopic gene expression/silencing and genome editing.[8,9,10,11] Without a transposon gun or gene gun, the transfection could happen in the laboratory, and in nature in the process of building body immunity.[12,13] Not only viruses, MGEs, or transposons, but one cell could also be transfected with microinjection.[14] MGEs transfection is a nano-transfection, because the size of the transposons is in nanometer measurement, while bacteria have micrometer measurement.

4.2 Anionic RNA and poor conductor

Interaction between negatively charged phosphates of the DNA backbone, and hydration between water and bases (outside the DNA plate double helix), support the anionic RNA and poor conductor. This poor conductor of electricity, is an efficient supporter of electrostatic fields. Isolated charged conductor of any form, the Gaussian surface has a zero charge at all points, so netto-charge is only on the surface of the conductor. The material between two DNA plates plays a role as a semiconductor and acts as a capacitor. The dielectric constant decreased drastically the field and increase the capacitance with water permeable core. DNA as poor metal has a highly resonant owing to a drastic increase in the value of the permittivity at terahertz frequencies. Non-viral vectors for gene delivery to human has been successfully done in gene therapy.[15,16,17]There are also single-cell transfection in micro-meter size.[14] Nonviral vectors based gene also could be done in transfection.[15,16,17]

4.3 HRH 90% vs 70% vs 50%

The current-voltage curves of poly (G)- poly DNA at different Relative Humidity (RH): 90% vs.70%vs.50%. In Jakarta on March 16, 2012, at 00:00 which has HRH with RH 100 %. Not only in the tropical rainforest areas, Nordic areas, and peninsular like Vladivostok, Siberia; Korea, has also HRH. They are marked by mulberry fruit and pines rich land through in the winter season near the Pole.

The dI/dV curves of DNA molecule at different Relative Humidity (RH) is very high RH (HRH), medium in medium RH (MRH), and low in low RH (LRH) (Fig.1). Differential Conductance (dG) = dI/dV) is the most important measurement made on small scale devices but present a unique set of challenges. Measure directly in voltage bias mode.

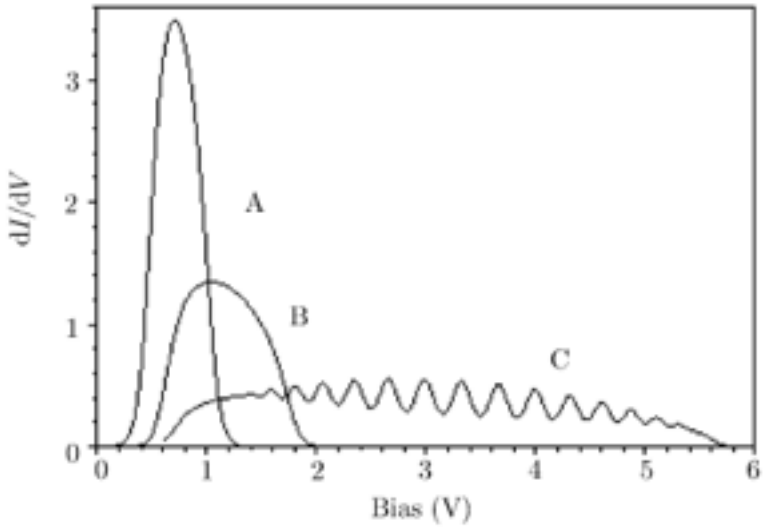

FIGURE 1: The dI/dV-V curves of DNA molecule at different Relative Humidity (RH): A (90%); B (70%); C (50%). From: Ling. Commun Theor Phys 2006; 46:381-384

Formula of Ohm's law is V = IR, so R = V/I and Electrical conductivity (conductance = I/V). V for voltage (is potential difference across a current carrying conductor), I for current flowing in that conductor, R for resistance to current or conductance (the reciprocal of resistance). The element that is the best electrical conductor is silver. Electrical insulators, such as glass and pure water, have poor electrical conductivity. Most of the non-metals are poor conductors of heat and electricity. The conductivity of semiconductors is intermediate between an insulator and a conductor. So the electrical conductivity (conductance) is the inverse of resistance, with the symbol G, and the units are mho (ohm spelled backwards) or siemens.

The capacitance of a capacitor is directly related to the Dielectric Constant (k) of the material between the 2 plates. High k and low k dielectrics depend on the material in between the 2 plates, more higher the k, gives higher capacitance. Dielectric constant also called relative permittivity or specific inductive capacity, property of an electrically insulating material (a dielectric) equal to the ratio of the capacitance of a capacitor filled with the given material to the capacitance of an identical capacitor in a vacuum without the dielectric material. In a wet climate area, capacitance is higher than in a dry climate. The value of the static dielectric constant of any material is always greater than one, its value for a vacuum. The dielectric constant at room temperature 25^{o}C is 1.00059 for air, 2.25 for paraffin, and 78.2 for water.

Besides wet climate (HRH) the account of aquaporin also has been known to affect the higher conductance.[18] Also depends on differential conductance.[19]

4.4 Transfection

DNA/RNA transfer among different species is known as transfection. Through membrane cell and then through anionic cytoplasm, and through the membrane nucleus-into the DNA cells. Transposons could also cling to other RNAi, mRNA tRNA or rRNA, plasmid, and various vector viruses. MiRNA suppresses transposons,[20] and epigenetically activated siRNA is triggered in plants by microRNAs to silence transposons.[20] Also known as small-interfering RNA (siRNA) and double-stranded RNA (dsRNA) in studying transfection mammalian genes. The condition of Tropical Rainforest Areas, and Nordic Area, has the same condition as the optimal condition for cell transfection in the laboratory is always kept the Humidity 100%.

V. LIMITATION

This study has some limitation:

a) Small sample size with large cases in 'steam-bath' climate area, are visa versa in 'sauna' climate area, describe small cases in dry-hot and dry-cold climate area, made these industrial countries haven't know that laden health problems in tropical rainforest area are due to this artificial nano-transfection, moreover with industry 4.0 which depends on

collagen and cellulose. It is a situation called industry 4.0 without society 5.0, where the difference should be bridged by speeding dissemination by these bioelectrical sciences.

b) Multiple comparisons without connections dry-hot and dry-cold vs. wet-warm and wet-cold are not specific chases.

c) Observational design is seldom considered far from the basic law of physics and should always repeat.

d) Risk for confounding is weak.

e) This study offers new potentially useful information for this patient population in Tropical Rainforest Area (TRfA)

VI. CONCLUSION

Awareness of 'steam bath' in wet and warm climates do sign and do industry 4.0 green activity in Indonesia Presidential G-20 Nov 2022, should be different from 'sauna' in dry and hot climate like Yemen, Gobi, Sahara Desert, etc. The hallmark of transposon transfection in epidemiology is dependent on HRH controlling permittivity.

CONFLICT OF INTEREST

None

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