

THE PHYSICS OF THE CELL

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Abstract: Just as we have to make theories of physics, in nature (inertial reference systems do not exist in nature, but there is a special theory of relativity), so we have to examine the cell in the body! Under the microscope, the cell, cut off from the body, has no electrical activity.

In the organism, the DNA of the organism is an LCR circuit. And the body has pressure and heat, heartbeats. Pressure and changes in pressure and beats reach and affect the cell. A change in pressure and its rate in a cell, which reaches there, causes the piezoelectric effect. Varying rates of electrical stimulation affect and stimulate the electrical circuitry of DNA.

Cancer is rapid cell division, caused by changes in blood pressure and heart rate, which is caused by electrical stimulation of the cell and in turn, this electrical stimulation, stimulates the electrical rhythm of the DNA and this is how the rapid division of the heartbeat begins

Keywords: Cancer, LCR circuit, blood pressure, heart rate, rapid cell division, electrical activity.

INTRODUCTION

Doctors are trying to find the causes of cancer. But the findings and theories of biologists and physiologists, who examine cells under microscopes and cell cultures, etc., arrive. These are cells outside the body.

As I argue in another paper in this journal of the same period, DNA is an LCR circuit, frequency present in infrared and light radiation. Infrared is also irradiated by DNA and the cell's combustion and respiration take place.

The pressure and rhythm of the heartbeat reaches the cell, it is pressed and we have the piezoelectric effect. Varying rates of electrical stimulation of the cell become the cause of stimulation of the rhythm of the DNA LCR circuit. A coincidence of appropriate rhythms is the cause of DNA working at such a rate that the cell divides rapidly, i.e. we have cancer.

METHODOLOGY

Here, with questions and answers, the complete realization of induction and abduction, tools of reasoning, takes place.

The experiment, like the combustion of glucose in infrared radiation and the conclusions, are driven by the reasoning made by abduction and induction and the experiments and findings become tools of reasoning and methodology.

This methodology also includes the examination of the cell, within the organism and the construction of theories of physics, which describe nature itself.

THE PRESSURE EXERTED ON THE CELL

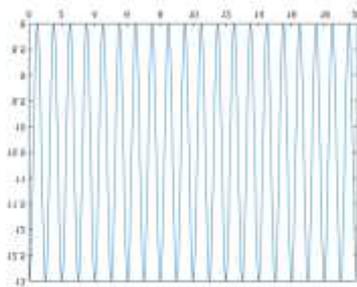
As you know, all organisms have blood pressure. Of course, it does not have the original size, which begins in the systolic e.g. heart pressure. The blood leaves the large arteries, where the pressure is high, goes to the narrower arteries where the pressure is lower and then to the capillaries and reaches from there, to the transcellular fluid. I can't estimate how much pressure is getting there, but some are getting there.

And the pressure of the atmosphere, as you saw in PHYSICS AND MATHEMATICS OF THE THEORY OF THE WHOLE, is much less than Torricelli calculated. But the blood pressure monitors show more or less pressure correctly. But blood pressure, when arm blood pressure monitors show 130 mmHg, assuming this is correct, is still not correct. You have to go to an old doctor to see the blood pressure monitor they originally had, it looks a bit like the Torricelli tube, I can't find one

to show you, my doctor Mr. Partsalis was measuring me. You will see, they say 130 mmHg, but they did not calculate the atmospheric pressure. That is, if the atmospheric pressure is measured correctly and is 760 mmHg, then the systolic pressure of the heart is $760+130=890$ mmHg. Large pressure and the smaller reaching the cells is again large.

I told you again, physicists often did physics outside of nature. You all know that there are no inertial reference systems in nature, and you all admire the special theory of relativity! Are you also to blame? Why don't you let Einstein travel to a distant part of the universe, find at least an inertial system and abandon the special theory of relativity? This is how Biologists describe the cell, outside the body! Come now let's travel through the body and we reach the cell!

The blood has systolic and diastolic pressure measured by blood pressure monitors and the heart has, let's take for simplification, 60 beats per minute. This means to us physicists that it has a pulse frequency of 1 Hz. So, with this frequency, the blood pressure changes. But the systolic pressure is 130 mmHg and the diastolic is 80 mmHg. So, with the frequency of one Hz, the pressure changes (approximately) $P=10.5+5\cos(2\pi \times 1\text{Hz} \cdot t + \phi)$. So we found the change in blood pressure.



You look at the oscillation, it starts at 8 and reaches 13, which happens approximately.

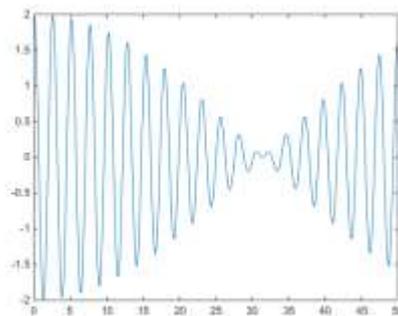
LET'S GO TO THE CELL

I don't know the absolute number, but the pressure it reaches is, $P=P_0+P_{\max}\cos(\omega t+\phi)$. This contracts and expands the cell, by volume. What happens in inorganic nature, when we press some materials? the electric piezoelectric effect.

We go inside the cell and take a sample cell, which is divided into 24 hours. What is the frequency for the cell to pass through the phases and divide? $f= 1.157 \times 10^{-5}$ Hz and $\omega=7.269 \times 10^{-5}$ rad/sec.

Is it not an experimental result, the breakdown of DNA, when the water boils? So, it takes heat for DNA to break down in the S phase of the cell! Cleavage occurs in water, the nucleoplasm where the chromosomes with DNA are located, is denser and somewhat different from water, it certainly has a lower heat capacity than water. We know the heat capacity of a material from physics and the nuclear plasma has it! So, it doesn't need 100 degrees Celsius, which boils water, but much less (to break down DNA).

We had said that the pressure changes in the cell. Doesn't the pressure cause an increase in heat? So, we have a first fluctuation of the heat of the cell, according to the heartbeat! But we said that the maximum heat of the cell is achieved in the S phase of cell division and this is done according to the frequency of cell division. So, when do we have two frequencies in a body? When we have a contribution of two close to frequencies and add them! Isn't $\cos A + \cos B = \{2\cos(A-B)/2\} \cdot \cos(A+B)/2$? So, the thermal oscillation of the cell sample with 60 heartbeats is, $\cos(2\pi \cdot 1\text{Hz} \cdot t) + \cos(2\pi + 1.157 \times 10^{-5})\text{Hz} \cdot t$, approximately, don't want more precise numbers, they can be found.



Contribution, it is similar to what I am telling you.

AND FOR OSMOTIC PRESSURE

When the concentration of particles in solution on one side of the membrane is higher than that of the other side of the membrane, pressure, osmotic pressure is created and the particles jump to the lowest concentration. Thus, the osmotic pressure due to the glucose molecules, in the space outside the cell, compared to the space inside the cell, is periodically increased by the blood pressure. Of course, above I talked to you about the fluctuation of the heat of the cell and you had already understood that it is accompanied by this contribution of heat waves, depending on the pressure. So especially the molecule of glucose, with which the cell is breathed, has a frequency of flow to the inside of the cell, where it is burned, that is, the frequency of wave contribution that I developed for you. The maximum amplitude of the contribution oscillation is achieved in the S phase of the cell, where the DNA cleavage takes place.

THE HEAT WAVE

We said that the heat wave follows the equation

$\cos(2\pi \cdot 1\text{Hz} \cdot t) + \cos(2\pi + 1.157 \times 10^{-5}\text{Hz} \cdot t) = 2\cos(\pi\text{Hz} \cdot t + 1.157 \times 10^{-5}\text{Hz} \cdot t) \cos(1.157 \times 10^{-5}\text{Hz} \cdot t)$, approximately. This is what trigonometric identity comes from. The small frequency is the large wave of the contribution of the daily division of the cell and the large 1 Hz is the small wave within the large, the contribution frequency.

WE ENTER THE CELL, ELECTRICAL PULSE OF EXCITATION

We talked about the electric piezoelectric effect. So, the rhythmic pressure of the cell, from the blood, becomes an electrical impulse in the cytoplasm, but also in the nucleus and the mitochondrial layer. The pulse reaches the DNA of the mitochondria and the nucleus and stimulates it.

I had told you in GROUP ELECTRICAL BEHAVIOR OF ATOMS AND ELECTROPHYSIOLOGY OF MAN, that DNA is a Thompson electrical circuit. But as with this circuit, in order to oscillate, it needs an exciter. The exciter can be an electromotive force of continuous electric potential, or a pulse. Here he is now, from the piezoelectric effect.

Don't tell me that DNA is not a Thompson circuit. You know from gel-to-gel electrophoresis, it attracts DNA, it's electrophoretic, it has electrical ions. Even if nothing else happened, that is, if a current also passes through the carbon atoms of pentose and others, an electric current from the ions passes through it. So, DNA is a Thompson circuit, it oscillates electrically. At what frequencies does it oscillate?

THE BURNING OF GLUCOSE

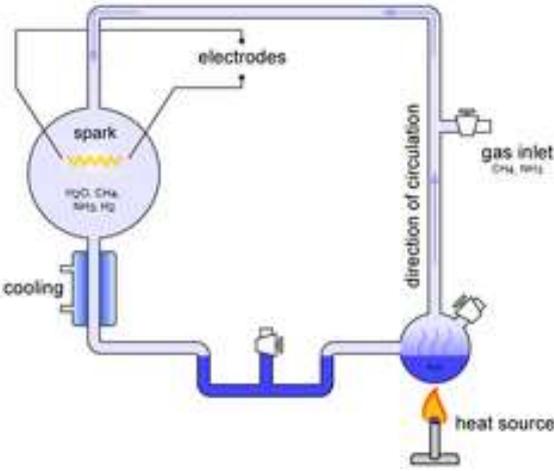
We said that glucose reached the cell and even the nucleoplasm and the mitochondrial layer.

If you read glycolysis and the Krebs cycle from any biochemistry, you will agree with me that God would be a great sadist if He implements such complex processes to make the cell breathe!

So, I went to the supermarket, took a bottle of pure glucose for 2.5 Euros, put it on a platter and exposed it to the radiation of the infrared lamp. Soon it started to swell and burst, it was gassing. I got the gas sensor, the reading was very high, I was getting carbon dioxide and definitely methane (methane was needed in the Urey-Miller experiment, who said that they created conditions in their device of electric sparks, protogenesis of matter and also made amino acids). After a while, a dark brown to black solid sediment remained on the platter, it was coal and even lignite. I measured the temperature of the platter, it was 93 degrees Celsius.

Then I got an airtight bottle, worth one Euro. I put glucose in it, I called it airtight. No matter how long I exposed it to infrared radiation, no change was observed. So, glucose is burned in the presence of oxygen, as in a platter. And we get oxygen in our breath and it also arrives with osmotic pressure inside the cell. I also put water on the platter and put it on the lamp. It reached 63 degrees Celsius. So, the burning of glucose, which reached 93, was exothermic.

So, the electrical oscillation of DNA is located at infrared frequencies, spreads infrared radiation and burns glucose inside the nucleus and mitochondrion. And methane is also produced and ammonia has entered the cell and oxygen and hydrogen and there is also water, the data that Urey-Miller put in. The electric spark is missing and you inside the cell will not have the requirement to be as large as in their experiment and the spark is made by the telomeres of DNA.



The Urey-Miller experiment

THE MITOCHONDRIAL DNA

You know that mitochondrial DNA is circular. It is a circular current loop, and just as any loop needs the electric battery, DNA has ion concentrations per segments, which raise the electrical voltage, and there is the electric loop. That is, something like in the axons with the Ranvier nodes where ions are observed and the electrical voltage rises.

WE ARE IN 2004

Of course, I was much younger then and inexperienced, I hadn't started doing experiments yet, I had a good level in physics. I take and read high school Biology 6 times and then I got a thick American Biology that you will see in the relevant ones. I read about cell division, I arrive and am informed that cancer is rapid and often abnormal cell divisions. Yes, but I'm a physicist. I realized that in order for cells to divide quickly, more energy is needed. So, I came to the conclusion that the tumor has a higher temperature than neighboring cells. That is, if the temperature in the neighboring ones is 36.6, in cancer it will be 41. I say, if we increase the temperature of the cells, the tumor cells will die, the neighboring ones will not. I knew the microwaves, maybe you don't know the microwave too? I say, if we irradiate the tumor, it can be intercepted. Of course, of course I exaggerated with the skill of the method and I did not know how it could be done in practice. I say, people will be saved, I will run to get patents and glories? I knew that the people next to me were watching what I was saying, when I was sitting with friends in the square of Agrinio. I go and start talking loudly, listen guys what I discovered with microwaves!

The Americans make these transmitters, the doctors call them electromagnetic waves, they don't know the microwaves! That's when my colleague Vicky gets bowel cancer, I had her as a sister. It metastasizes to the liver. Obviously for me, they bring the device to a hospital in Ioannina, where Vicky was being treated. They performed surgery, removed the liver, cleaned it and irradiated it. Vicky managed to live another 5 years.

Of course, I, who exaggerated the capabilities of the device, had to think that the radiation penetrates the tissue somehow, not completely. The cancer stayed in the background and came out again!

NOW FOR CANCER

That said, there is more energy and cells divide faster. It is thermal, but electricity is also close, thermal energy is electric with great oscillation, many Volts, see what happens in electric shock, current 220 Volts. What happens in cancer? Oh Vicky, I didn't know them then! Infrared radiation is thermal, DNA has thermal and electrical infrared DC oscillations. So, something happens in DNA. And well, if the cancer comes from the circular molecules of mitochondrial DNA, there is a greater concentration of ions, a greater rise in electrical potential, more current, more energy, and there is cancer! Now? In the DNA of the nucleus, what happens?

We said that the DNA of the nucleus is an LCR circuit that necessarily has its excitation, the electroexcitatory external force! So, if a greater electromotive force arrives, the frequency and voltage of the circuit will increase! We will go crazy, we said about the piezoelectric effect and pressure waves that reach the cells from the blood! Do you believe that the heart rate and pressure are what stimulates irritable cells and they become carcinogenic? In any case, I find it hard to believe, but that's what the logic of a consistent physicist says! Of course, not in all forms of cancer!

THE VARIETY OF STIMULATIONS

I said that the pressure and rhythm of the heartbeat is the cause of many forms of cancer, and you dismissed it.

The pressure, its changes, the beats, the rhythm of the heart and its changes are varied. The thickness of the corresponding arteries, capillaries and their length, is different in each person. The changes in pressure that reach the extracellular fluid are enormous. The electrical excitations of the cell, the pulse of excitation, enormous in variety. And the eigenfrequencies of DNA, enormous.

So, an ultraviolet radiation falls and changes the eigenfrequency of the DNA. This is now stimulated by a frequency, one, the bad time and the frequency rate changes the DNA, it is now a frequency of behavior of total, faster cell division.

EPILOGUE

Just as we have to make theories of physics, in nature (inertial reference systems do not exist in nature, but there is a special theory of relativity), so we have to examine the cell in the body! Under the microscope, the cell, cut off from the body, has no electrical activity.

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