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A Physicist's View of Dr. Rife's Non-Drug Treatment and Cure of Microbial Associated Diseases

By Gary Wade

[This is a revised issue, which takes into account some new information received on Rife's frequency instrument. Figures 2 and 3 have been revised and the old text commented on.]

During the 1920's and 30's, Dr. Royal Raymond Rife produced some rather astounding accomplishments in medicine and biology.

First, he invented a new kind of optical microscope. This microscope could be used to observe viruses in live cells and tissue culture.[1,2] Rife built five of these microscopes. Rife never published the plans to his microscope and to this day those in the scientific establishment not familiar with Rife's work wrongly claim that it is generally impossible to see or identify a virus with any optical microscope.

Rife's second great accomplishment was to invent a variable frequency flashing light source which could kill bacteria, rickettsias, protozoa, fungi, and viruses. By 1939, Dr. Rife had both identified the microbes and the light flashing rates (frequency) required to kill these microbes, which were associated with fifty-two major diseases, including carcinoma and sarcoma cancers.[2,3]

In this article we will describe what Rife's frequency instrument was and how it could destroy a microbe without harming the host/patient.

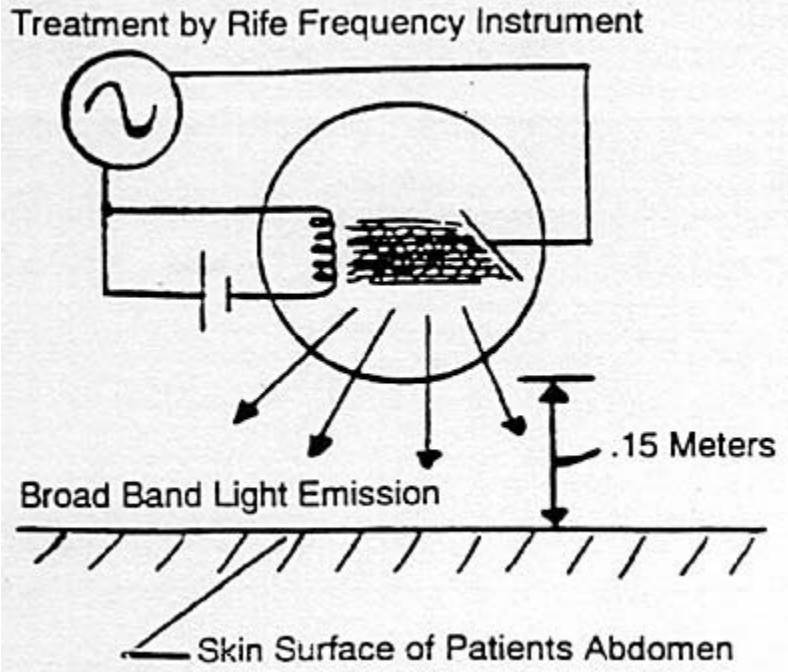

FIGURE 1

Figure 1 shows a schematic view of the Rife frequency instrument in operation treating a patient. The frequency instrument consisted of an old style X-ray tube, which had been back filled with helium gas at very low pressure and had a current flow through the tube driven by a sine wave voltage oscillator. When the voltage polarity across the X-ray tube was such that the hot tungsten cathode was at a negative voltage as compared to the metal plate anode, an electron current would flow from the cathode to the anode. This electron current would collide with the helium atoms exciting them and thereby generating light. Since the polarity conditions for current flow through the X-ray tube were only met on one half the sine wave voltage cycle there was one pulse of light produced for each complete sine wave voltage oscillation cycle (see Figures 2 and 3) . Another way to say this is, that if a million cycles per second of sine wave voltage is applied across the X-ray tube, the X-ray tube will produce one million pulses of light per second. As a practical example, Rife found that the common carcinoma breast cancer, (which is now reaching epidemic proportions among women), was killed by a light pulse of 11,780,000 light pulses per second.[4,5]

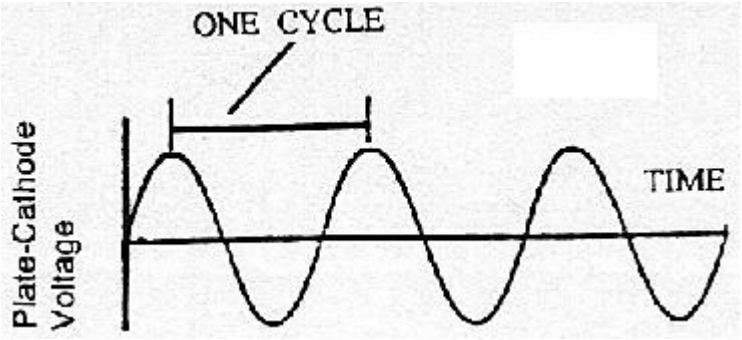

FIGURE 2

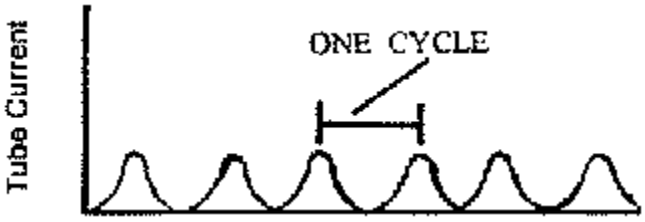

FIGURE 3

[Note:Probably should be 23,560,000 pulses per second. It now seems that the helium gas pressure (probably .003 milli torr) and voltage (Vrms=928 volts) difference between the cathode and plate were such that electric current flows in both directions in the X-ray tube. This would give twice the light pulses per second than previously believed.gw]

For the currently trained biologist and medical researcher, all of the above statements about Rife's work and accomplishments are suspect at best. The reason for this is that they have a very limited knowledge of physics and no knowledge of Rife's research results. For example, they do not know that Rife isolated a viral sized, spore like, motile form of the E-coli bacteria that when exposed to prolonged ultraviolet light became a virulent carcinogen, which invariably caused carcinoma cancer when injected into lab animals. The key to getting Rife's work and accomplishments into general medical and biological use is [to] end to this ignorance about how and why Rife's frequency instrument worked to kill microbes.

To that end I will now describe and illustrate how the Rife frequency instrument can destroy a virus. I will illustrate how a specific virus can be destroyed by a specific frequency of ultra sound. This ultra sound is generated by the Rife frequency instrument. Note that light carries linear momentum and that when the pulse of light from the Rife frequency instrument is absorbed by the patient's skin layer that skin layer must recoil in the direction of light flow to conserve linear momentum. When the light pulse has ended, the skin relaxes back toward its non light pulse exposure position. In other words, periodic light pulses generate periodic pressure pulses in the patient's skin layer which travel into the patient's body. The Rife frequency instrument converts the patient's entire exposed skin surface into an ultra sound transducer for the generation of ultra sound. Even though the efficiency of ultra sound production is exceedingly low by this method, it is still adequate to kill microbes. As a practical example, Rife would treat his cancer patients using his frequency instrument for three minutes of exposure once every three days. Usually his "terminally" ill cancer patients would be cancer free in about thirty such treatments or less, as was verified in the 1934, 1935, and 1937 test clinical trials carried out by the U.S.C. Medical School Special Medical Research Committee.[3] That same committee then suppressed the research results.

The reason for the short three minute treatment is to kill off only a thin outer layer of cancer tumor at one time. This allows the body's immune system to remove this layer before the next treatment. The entire cancer tumor could have been killed/destroyed in a single Rife frequency instrument treatment of perhaps one to one and a half hours. However, then the cancer patient would have a large mass or masses of dead cancer

tissue in them, which would become a feast for a massive bacterial infection. This bacterial infection could lead to liver and kidney damage and general toxemia.

The Rife frequency instrument kills the "normal" carcinoma cancer cell by rupturing the thousands of BX cancer viruses they contain and thereby dumping the BX cancer virus contents into the cancer cell cytoplasm. This BX cancer virus as Rife named it in 1931 is not a virus by the normal standard usage of the term today. Rife based his definition on the fact that the BX cancer virus could pass through the finest Berkefeld porcelain filter of the time (000 filter). The BX cancer virus is ovoid in shape, .066 microns along the major axis and .05 microns along the minor axis. It is motile, driven by a proton transport flagella the same as its bacterial parent, the E-coli bacteria. When the BX cancer virus is ruptured it spills out its genome, ribosomes, RNA, enzymes, and various proteins. When thousands of these ruptures occur all at once in a carcinoma cancer cell the results are fatal to the cancer cell. A similar situation occurs in the sarcoma cancer cell when the BY cancer viruses are all disintegrated at once. The BY cancer virus is another form of the BX cancer virus which Rife found caused sarcoma cancer after it had been exposed to prolonged ultraviolet light exposure.

To see how the ultra sound generated by the Rife frequency instrument can destroy a virus we will examine the outer protein coat (capsid) structure of a virus. Most viruses of interest which cause diseases in plants and animals have an icosahedral capsid structure as illustrated in Figure 4A and B. A specific example of this icosahedral capsid structure is illustrated in Figure 5. Each dark circle represents a spherical protein molecule clump. When the virus capsid of Figure 5 is folded together as indicated in Figure 4A and B, a simple virus capsid model has been formed. Examination of this capsid model shows a large number of intersecting and overlapping closed rings of protein molecule clumps. These closed rings of periodically spaced protein clumps are illustrated in Figure 6A and B. In classical physics when studying standing wave phenomenon the periodically spaced protein clumps, as illustrated in Figure 6A and B, are known as the mass beads on a string problem with circular boundary conditions. Figures 7A, B, and C illustrate this classical physics problem. Figures 8A and B illustrate one of the standing wave motion modes which the closed periodically spaced protein clump rings of Figures 6A and B can sustain. Figure 8A shows a ten member protein clump ring linearized for ease of graphing wave motion displacement of the center of the protein clumps from their equilibrium position. Figure 8B shows the most stressful oscillation mode for the ten member protein clump ring. In this oscillation mode, adjacent protein molecule clumps are always going in opposite directions and therefore putting maximum stress on where they are bonded together. If this oscillation mode is raised to a high enough displacement amplitude the ring will rupture. If enough rings are ruptured, the virus capsid disintegrates. The Rife frequency instrument when set to the frequency which corresponds to the most stressful oscillation mode for the virus of interest, as illustrated in Figure 8B, will destroy that virus capsid coat and therefore destroy the virus.

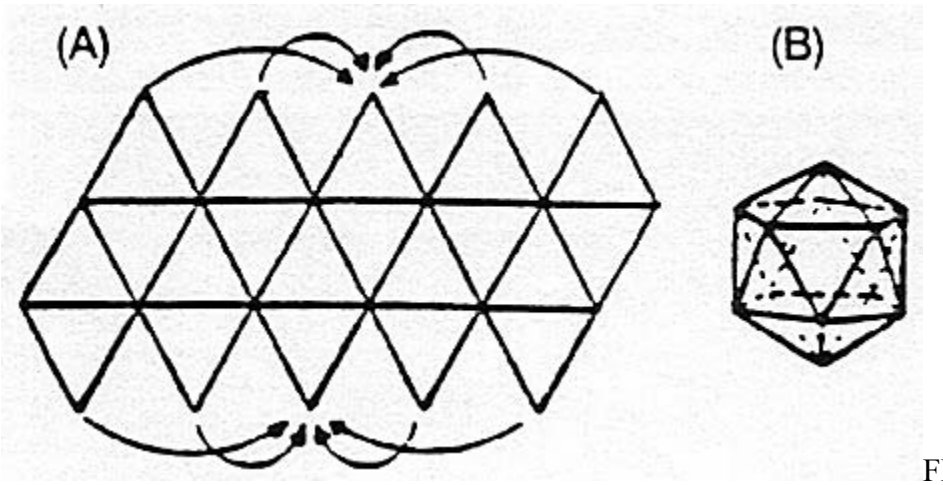

FIGURE 4

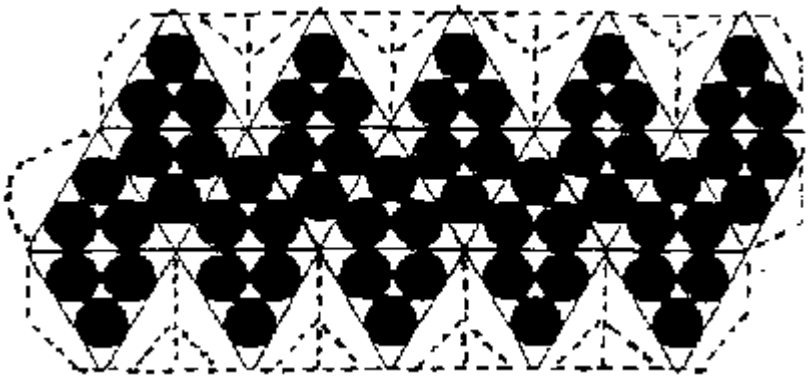

FIGURE 5

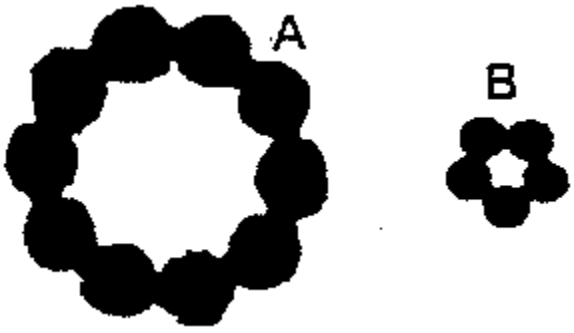

FIGURE 6

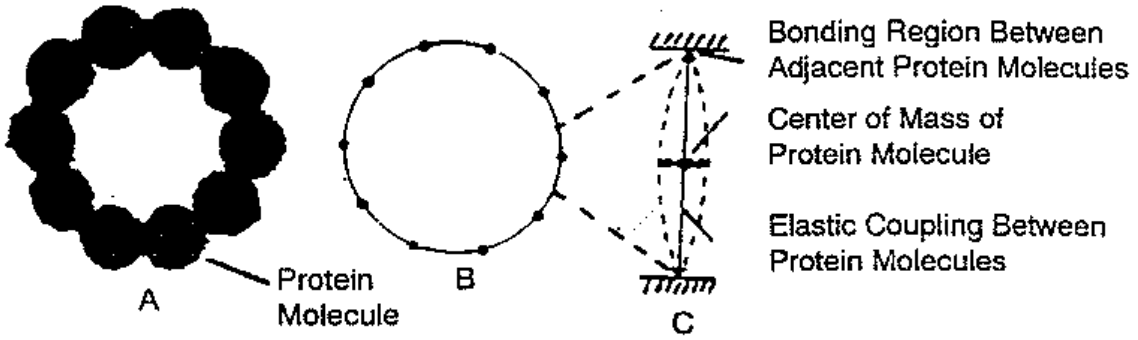

FIGURE 7

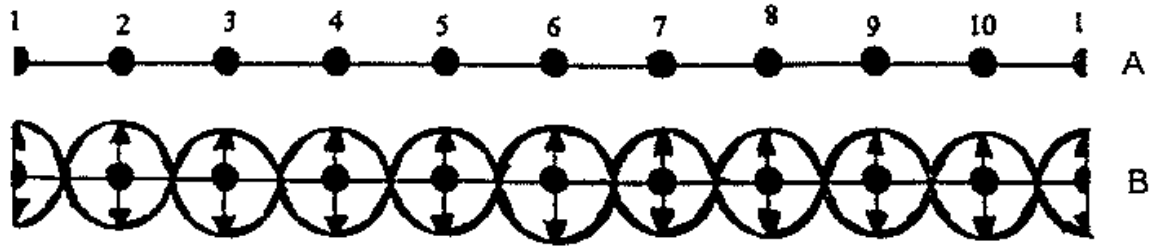

FIGURE 8

The common virus capsid coat was chosen to show how the Rife frequency instrument can destroy a microbe which have closed on themselves periodically spaced protein clump structures. Bacteria, protozoa, rickettsias, and fungi all have these closed on themselves periodically spaced protein clump structures in their outer structure, which makes them susceptible to destruction by the Rife frequency instrument.

Advancements in electron technology have made a much more efficient and vastly more powerful replacement for the Rife frequency instrument. Namely, the piezo-electric transducer, driven by an appropriate signal function generator as can be purchased in any electronic test equipment store. In our present circumstances where antibiotic resistant bacteria are about to become rampant, anti-viral drugs are largely still just a bio-tech dream, and the war on cancer has been a dismal failure for the cancer patient, but not for the so-called cancer researcher. It is long since time for Rife's 1930's work to be implemented.

References

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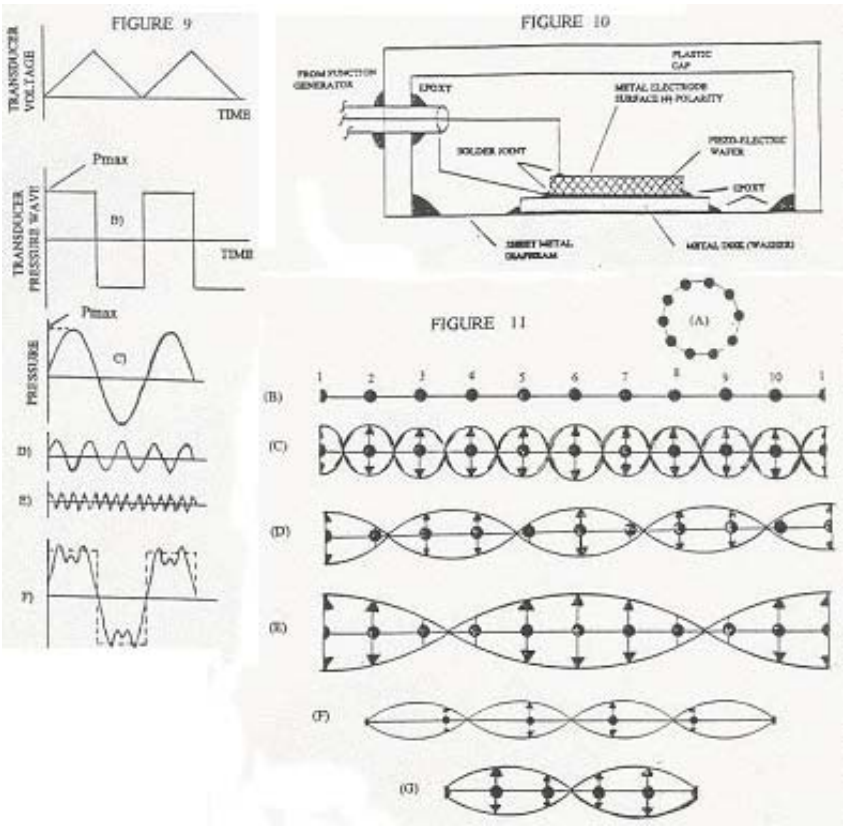
4. The Royal Rife Report, compiled by Allison Davidson, (see page 83). Published by Borderland Sciences Research Foundation,PO Box 220,Bayside, CA 95524,Phone:(707)825-7733, FAX (707) 825-7779,email: bsrf@asis.com,Web page: http://www.asis.com/bsrf/main.html
5. Dr. Rife and the Death of the Cancer Industry by Gary Wade, for info, write: P.O.Box 3813, Alhambra, CA 91803.

TECHNICAL ADDENDUM ARTICLE TO: A PHYSICIST'S VIEW OF DR. RIFE'S NON-DRUG TREATMENT AND CURE OF MICROBIAL ASSOCIATED DISEASE

(02.21.96)

By Gary Wade

At the end of the August 94 Health Freedom News article on Rife's work, it was stated that the Rife frequency instrument could be replaced by a piezo-electric transducer driven by an appropriate signal function generator. To be specific, it is a piezo-electric transducer driven by a triangle voltage wave form, as illustrated in Figure 9A. When this triangle voltage wave form is applied to (across) the piezo-electric transducer wafer illustrated in Figure 10 [all figures in the jpg image], the wafer expands and contracts it's thickness as the applied voltage rises and falls. The change in wafer thickness is directly proportional to the voltage change. Since the voltage of the triangle wave form rises and falls linearly (at a constant rate) with time, the wafer expands and contracts at a constant rate. One side of the wafer is free to expand into the air space. As it expands with changes in applied voltage, it produces a recoil onto the metal disk to which it is epoxied. In turn this recoil force is transmitted to the sheet metal diaphragm to which the metal disk is epoxied. This recoil force, when applied to the surface area of the sheet metal diaphragm, becomes a pressure (force per area). Figure 9B illustrates the pressure wave form generated at the diaphragm surface due to the triangle voltage wave form of Figure 9A being applied to the wafer. If the diaphragm is laying flush on a person's skin, then Figure 9B shows the type of pressure wave transmitted into the person's body from using the voltage wave form of Figure 9A. The pressure wave form of Figure 9B is called a pressure square wave.



According to Fourier theory in mathematics, any periodic wave form in time such as Figure 9B can be decomposed into or constructed out of an appropriately chosen set of either sine functions or cosine functions or a combination of sine and cosine functions, all of which have frequencies of oscillation which are integer multiples of the frequency of the periodic wave form being constructed or decomposed. Figures 9C, D, and E represent the first three sine wave components of an infinite set of sine wave components given by Equation 1, which when added together will form the pressure square wave of Figure 9B.

$$P=Pmax (\sin wt + 1/3 \sin 3wt + 1/5 \sin 5wt + 1/7 \sin 7wt+...);$$ Equation 1,

where Pmax is the amplitude of the square wave and w is it's angular frequency, which is two pi times it's frequency. Figure 9F is the addition of the first three Fourier components. We can see the series converges relatively quickly to form a good approximation of a square wave.

As was pointed out in the Rife article each microbe has it's own specific mechanical resonant oscillation frequencies, which can be used to destroy it. Figure 11A illustrates the centers of mass of the protein molecule clumps of Figures 6A and 7A of the Rife article [sorry, not scanned yet,rsc]. Figures 11B and C are the same as Figures 8A and B of the Rife article. Figure 11D and [E] each illustrate two other standing wave oscillation modes for the closed on itself periodically spaced protein molecule clump structures of Figures 6A and 7A. I say two modes each, because the wave can be traveling around the "circle" of Figure 11A clockwise or counter clockwise. Figure 11F and G each illustrate

two standing wave oscillation modes for the closed-on-itself periodically spaced protein molecule clump of Figure 6B. Now mechanical oscillation frequencies that correspond to each of these oscillation modes (wavelengths) can destroy or greatly damage a real virus capsid, which corresponds to a capsid constructed out of Figure 5. However, only the oscillation modes illustrated in Figures 11C and G efficiently cause maximum stress on the weak bonding between adjacent protein molecule clumps. There is only strong mechanical oscillation amplitude when the driving mechanical wave frequency is very close to the standing wave resonance frequency of the virus or bacteria. If the driving mechanical wave amplitude/intensity is over a threshold value, the adjacent weak bonds between the oscillators (protein molecule clumps) will rupture. Intensities of around 10^{-16} watts/meter are sufficient to destroy a microbe when the frequency is one of the main structural mechanical frequencies of the microbe. With required ultrasound intensities to kill a microbe so ultra ultra low, even the very weak in amplitude higher frequency Fourier components of Equation 1 can kill a microbe, if the higher frequency component matches the mechanical resonant frequency of the microbe.

So the situation we have is this: By very slowly varying the frequency of the triangle voltage wave form from its lowest to its highest value on the function generator, a set of pressure sine waves is generated by the transducer, which effectively covers a frequency rate of many millions of cycles per second. This ultrasound frequency range is sufficient to kill the majority of viruses and bacteria known.

Note that because of FDA regulations and various laws passed in various state legislatures as a result of heavy lobbying by pharmaceutical companies and monopolistic trade associations, such as the AMA, no medical claims, such as a cure for any disease can be made, regardless of the truth of the situation. All information expressed here within must only be considered "theoretical" information for you to do with as you see fit.