For those who have never heard of CES or cranial electro stimulation here is an article that explains what it is, what it does, and the history behind CES. The late Dr Beck brought these wonderful devices to the market for our benefit. The latest braintuner is called the Sota BT7. There are other brands of CES devices that will work as well, most are more expensive. So if you are intersted in trying CES for addictions, anxiety, depression or insomnia the Sota BT7 is the least expensive way to benefit from CES.

Steve

Brain Tunner 6
Carnial Electrotherapy Stimulation Device

The
Brain Tuner
Excerpts from a talk given
by physicist
Robert C. Beck, D.Sc.
This talk took place at an
informal gathering in 1983
to introduce his newly
developed Brain Tuner.



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The Food and Drug Administration in the U.S. or the Health Protection Branch in Canada
have not evaluated this literature. The Beck Brain Tuner and this printed information are not
intended as medical advice and are not intended to cure or treat any specific disease.
Government regulators state that you must consult a medical doctor for the treatment of any
diseases.

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Research Studies
Please note that the research and studies referred to during the talk given by Robert C. Beck, D.Sc. are not specific to the Brain Tuner. The research bibliography referred to is specific to Cranial Electrical Stimulation (CES). This is the technology on which the Brain Tuner is based.

The bibliography
Bob Beck refers to is on page 20 to 22.


History of Cranial Electrical Stimulation (CES) Technology and the Development of the Beck Brain Tuner

Paul Tyler, who was at that time Chief of the Defense Nuclear Agency, Radiological Defense, usually picks me up at the airport in Washington and takes me back to the plane. In February he said, “Bob have you seen the article in the January Omni magazine on Meg Patterson’s magic black box?” I said, “Ya.” He said, “Well aren’t you interested?” I said, “Ya.” He said, “Well while you’re out in California,” he said, “why don’t you look her up and see if there’s anything we can do for her to get this thing broken loose and into the mainstream.” Now this was an honest effort by Paul Tyler, who attends all of these conferences, to be of assistance to Meg.

So when I got to Los Angeles I gave her a call, introduced myself, said that the fellow who was in charge of this stuff for the Food and Drug Administration asks if he can extend any courtesy in helping you to get approval or what have you. She said, “Well I cannot talk to anyone, I have a contractual arrangement with the NET.” (Neuro Electric Therapy Group) At that time they were near the John Wayne Airport. “But under the circumstances we can call a meeting.”

Well this was, perhaps, one of the most remarkable meetings I have ever attended in my
entire life. At one end of the table was the principle investor who at this time had raised about 3½ million dollars to develop the “Black Box Brain Tuner” … the neural electrotherapy device. There were three of the staff scientists and the president of the financial company called TLC. A very bad analogy, the middle word was leverage, I think it was Turner Leverage Corporation, it had nothing to do with Tender Loving Care.

Meg had been brought to this company in August of 1981 to develop the device, which had been built for her by Shackman Instruments in England. The history of this is that Meg Patterson, while working as an abdominal surgeon at the Tung Wa Hospital in Hong Kong, had come across Dr. Wen and his use of electro-acupuncture for anesthesia. Dr. Wen had discovered, quite accidentally, that many of his patients were on heroin. At
this time 1970–1972, a a day habit in the United States would cost less than a pack of cigarettes in Hong Kong. And about 20% of the gross population that would go through the Tung Wa Hospital in Hong Kong were heroin addicts. So doing hundreds of surgeries a month, a certain percentage of these people who were heroin addicts began to report, “I’m not feeling any discomfort. I don’t have withdrawal pains. I seem to have an altered state.” They would go back on the street after surgery, get a fix from their usual ‘mother’ and find that the fix had not given them the same effect. There were a number of fights because they thought their heroin was being cut, etc.,

but it was a very interesting political situation.

The Addiction Withdrawal Process

So, Dr. Wen did what any cool scientist would do, he began doing rat studies. Mega rats. I'll digress for a moment here and say that heroin or opiates as a class—opium, morphine, heroin and the number of the synthetics that are manufactured in the ethical pharmaceutical houses—simply overload the body's production of normal endorphins. Beta-endorphins was discovered around 1975 as a painkiller that the body manufactures. It is about 100 times as effective as morphine as a painkiller. When you don't have it you get the aches and pains, the withdrawal, the stomach cramps, the nausea, the insomnia, all of these horrible things that attend withdrawal. When you give your body massive doses, or even small doses in the beginning, of any of the opiates the part of the brain
that says, 'build neural transmitters,' simply says, 'shut down we have too much.' So, when you get off of the substance, when you try to kick it cold turkey, the body is in agony because those little factories in the brain simply don't produce the endorphins. The word endorphin comes from en: endogenous and orphin: after morphine. It simply means endogenous or built-in morphine.

About five or six years ago there were some 40 known neuro-transmitters, seratonin being one of the most famous. At this time there are over 2,000 that have been identified and they're still counting. So, the brain is an exceedingly complex little factory. Remember the days in school when they said, "Well you're worth about five dollars, you've got two pounds of salt, some potassium, some carbon, some hydrogen." Try to buy a gram of interferon for under 8 to 10,000 dollars. The body is far more complex than this set of chemicals that we held so dear in grade school.

What Dr. Wen did was to hook the rats on heroin, have two groups: one control and one
active. He would cut off the heads of the rats and run chromatography (electrophoresis
chromatography) to find out what some of these trace proteins were in the control and the sample. The control group, the rats that had been hooked on heroin and suddenly cut off were pretty miserable rats. They showed that it took maybe a week to three weeks before the neuro-transmitters would again reappear—the exact range of time that the withdrawal symptoms occupy somebody coming off the

narcotic. The rats taken off heroin cold turkey and then with two little clips … were given electro-stimulation around 111 hertz. The testing showed that within 40 minutes of the time that the voltage was applied, the brain's ability to produce it's own neuro-transmitters had been rehabilitated and that within three to five days it had reached normal.

[Editor's note: we do not believe animal testing is necessary. We do not support animal testing.]

The Politics of Health and Addictive Substances

Now the implications of this were rather stunning. How many people do we have in this
country who are on valium—uppers, downers, legal narcotics that are highly addictive?

You probably remember that during the American Civil War, when morphine was invented to replace some of the other opiates, they said, "Oh, here we have a pain killer that is totally non-addictive." They've said this about almost every other drug that has seen the light of day. In fact, boys and girls, if it isn't addictive they don't want to sell it. Do you realize that there is a 13.6 billion dollar legal pharmaceutical trade in mood-altering drugs such as valium? And that there is about a 20 billion dollar market from the same drug manufacturers in the United States that exported to Mexico where they do not have these pharmaceutical controls—prescriptions—which comes back onto the streets of the United States? That is close to 36 billion dollars a year at the retail level.

Now nobody wants to interrupt this trade. Tobacco is 4½ times more addictive than heroin. This study was done here at the Veterans Administration Hospital, Sepulvida, by Dr. Krober in 1974. It had been found that GI's coming back from Vietnam who had several habits—tobacco, heroin, others, could be gotten off heroin within 72 hours to a week. But it was almost impossible to get them off of tobacco. So a study was done which established that the withdrawal time on tobacco could run up to two years. That it was 4½ times more physically addictive than heroin—this is hard core scientific data. Would you like to see the American tobacco companies stop paying taxes? Their net is around 27 billion dollars a year. These are

big dollars.

People ask why these devices are not exactly legal in the United States. Well, getting back to the story, we came to this conference table hoping to exchange some information. I passed along to Meg and the rest of the people (who must remain nameless, but this is thoroughly documented) the fact that Paul Tyler was willing to assist this group in getting this device going. Now, since she had been in this country, they had raised 3½ million dollars to build a prototype. At the time that I met with these people in February of 1983, not one device had been built. Meg had been in California since August of 1981.

So I asked them, "How's your patent status?" They replied, "Well, we realized that once we patent it we've given the secret away, so we plan on using the strategy of continuance in part." If you know what this means—in other words they would continue to modify the patent as long as possible with continuation amendments so as not to get a patent. That meant that they had no patent. "Well what is the status of your prototype?" Again they responded, "Well…we're, yada, yada, yada…" I then asked, "Well are you going to sell these devices?" Response, "Uh, we don't know, we think we're going to lease them." Next question, "Well how much?" Response, "Well we'll put a price tag of about ,000 on each box and the doctor will be on the franchise agreement. They required to charge the person ,000 if he has no insurance for 10 days use of the box. ,000 if he
has insurance coverage. I have the letter here that went to the franchisees. And yet they had no boxes. A number of people had bought territory for this including William Parker of the Parker Holistic Health Center and a number of other people that by this time I had met. They had been promised delivery of the Brain Tuners by December of 1981 and here we are into 1983 and not one box had been delivered. Some strange things were happening here. And after listening to this for about an hour, I was prepared, I had armed a briefcase.

I had devices which I had acquired, had smuggled into the United States from the USSR,
from Finland, from Germany, from England. I still have some of these. We have the original devices that have been used by Dr. Wen in Hong Kong. In other words the grandfather of the Shackman Instrument device that Meg had used at the Pharmacon clinics in England. So, it turned out that the investors who are at this table were not even aware that this technology was over a hundred years old … had been used in the Soviet Union for over 20 years … and had been used on the continent for 15 years … and in Great Britain for 10 years. They thought that they had an original idea, which might have been patentable.

These devices could absolutely rock the boat of the pharmaceutical drug industry, the liquor industry, the tobacco industry, the doctors who make a great deal of money. When you want the prescription refilled, usually you have to pay the doctor a fee. It's just a mess. Why are these not being used, for example, in alcoholic rehabilitation centers?
In 1969 some friends of mine, new friends—I didn't meet these people until I started
researching this area—had heard about the generic term "electro-sleep" that was being used in the Soviet Union for addiction and alcohol control. The government gave these people a little money, sent them to the Soviet Union, and they came back with one of the original devices that were used for "electro-sleep." It seemed that the Soviets had trouble with Generals who drank too much vodka. And at this hospital in Washington, which is a household word, they were treating American Generals who had the habit of too much scotch, bourbon or gin. They brought the device back to the United States in late 1969 or early 1970 and began using it in the hospital with addicts. It's one of the most fascinating psycho-political stories that emerged during the five months that I was actually researching this data. The CIA came around and said, "What are you doing?" My friends said, "Well, we have this electronic device which apparently is restoring short-term memory loss."

The CIA said, "You can't do that." The people who were working on the project were dispersed. They took the device to Garland, Texas to the Vero Instrument Company. Now Vero builds the high-technology equipment. Vero builds skunk-work devices like starlight scopes, infrared viewers, high technology microcomputers. They're one of the highest tech, government secret-agency suppliers in the world. The vice president of this company split off and founded a corporation called Neurosystems Incorporated and brought out a beautiful little device, which until recently was the Cadillac of the entire field, about the size of a pack of cigarettes that absolutely cured addictions. They thought,
"Wow we're going to have markets for this." They never got FDA approval. It's been 14 years.

FDA grandfathered them under section 510K of the 1976 Congressional Act. They still said, "Hey if we take this around to dry farms, namely alcoholic rehabilitation centers, there should be a tremendous need for these." Now in California alone there are about two dozen—it's a big industry. He knocked on doors and there was very little acceptance. Finally, a fellow who had worked for one of these dry farms told him the secret. He said, "You know if somebody comes in here who has good insurance, we can run up about a ,000 bill on laboratory tests alone … pathology,

kidney test, blood test, you name it. He has to be in here for at least a week and a half to 14 days before we break even on our television-advertising budget alone. The person gets glossed up … the family's happy … he goes back to work. 75% of them will backslide within six months. You come in here
with a device that will totally restore them in five days? Why, we are a franchise, we are here to make money for our stockholders, get out of here you bum."

Research on Addictions and the Brain Tuner Technology

Now fortunately they had spent a great deal of money in absolutely and totally documenting the effects of this little device. They found that it reversed Korscoff psychosis (short term memory loss) in three to five days with chronic alcoholics. This work was done at the University of Wisconsin Medical School, the Louisiana Medical College and at the University of Texas. Now any of you who've dealt with alcoholism know that it normally takes eight years for the short-term memory to be restored—eight years of total abstinence. The short-term memory profile of an alcoholic absolutely pinpoints the amount of degeneration. One of the tests is the maze test, where you have to go through a maze without lifting the pencil from the paper. The other is the beta section of the test where you have to look at words on one page, then the page is taken away and you have to remember it on subsequent pages. An alcoholic will usually show a profile of almost total inability to pass these two facets.

In all of their subjects, I don't like to say all, it's rather spooky, 99% of them—they were able … where they had a baseline of tests … for example, where the person had been to college, had taken this same or a similar test and had become an alcoholic for 15 years … where they had access to the original records, the short-term memory was totally restored in five days of using this little box 40 minutes a day. Now this is wild and wonderful. All of this emerged during some of the research. I spent quite a bit of time in the bio-Ed library of UCLA, some time at the Marris library, USC County.

Some of the papers, particularly the work done in the Soviet Union and in the Orient, were only available at the national medical archives at Beheads, Maryland. But, I have compiled a bibliography—it isn't in the final form—and any of you who are health professionals can get a copy of it. I'm still trying to get it on the word-processor and there's an explosion of information in electro-medicine lately, as anyone knows, and I try to update it. So, every week my friends send me at least

another dozen references on this particular topic. [See bibliography.]

Now it became apparent after spending a great deal of time with Meg that nothing was going to happen in this particular sector. She had her engineers come down to her little house on Fernleaf and I spent many an afternoon with them explaining what I had found independently—explaining the difference between constant current and constant voltage, etc. The only device Meg had brought to this country was the Pharmacon, which we were able to thoroughly instrument, analyze and document. About the size of the original Sony Walkman tape recorder.

This is the device that was used on Peter Townsend when he was flown in on a hospital bed type airplane to the John Wayne Airport. He had taken a massive dose of heroin before he left London, enough to get him to the States. He was absolutely green and yellow when they took him off the plane … when Meg put this device on his head … and within about 40 minutes, he was rehabilitated—after he'd spent a fortune in various clinics around the world. Peter Townsend finally got off, kicked the habit and is now happy, healthy, clean, producing again and all of this is history. Of course many of you have read this story—it's been reprinted in Penthouse, it's been reprinted in Omni magazine.

At any rate, they were getting results with the device as primitive as it was and it began to appear that the neuro-electric therapy group, the magnet group were not going to produce anything. They were either unable or unwilling to do it. Now this could lead to a great deal of speculation as to who got to whom, whether the Mafia was involved or some of the pharmaceutical houses or what have you. By the way, Meg's reason for not accepting the government's offer was that she wanted an entirely new category. Paul had conveyed to her that "If you will come in under the grandfather clause, it will get you approval by the FDA, which will permit animal and human experimentation." Meg absolutely and totally refused to do this. She wanted a new category for neuro-electric therapy, not realizing that this category had been preempted by CES, which is Cranial Electro Stimulation and a long list of generic terms. We tried to explain to Meg that since Reagan there are only under 300 investigators still working for the Food and Drug Administration and this is an accurate figure.

There are over 80,000 devices awaiting their investigation and approval. If you have another 5 to 6 million dollars and ten years to wait—even if we get you at the front of the list—it's not going to fly. But she absolutely insisted that she would not come

in under the grandfather clause for a TENS unit. Although these devices do a great deal more than any TENS unit, they cannot make claims for what they actually do because this would put them in a new category. And this means human and animal tests, certification, all of the research that goes on and on and on and takes a tremendous amount of money.

## BOB BECK'S DECISION TO DESIGN A BRAIN TUNER

### Research with Frequencies

So, I decided, "Well let's research this thing a little bit further and bring out a box that will do some good." Which I did. I gave away a number of these to friends and used them as guinea pigs. It worked, and we feel it is vastly superior to the ,000 Pharmacon device. … doctors have used the unit. The history of this is that some doctor will buy one unit and pass it around and then the next order will be for 3 or 4, the next will be for 10, the next one will be for a couple of dozen. So, it's a thoroughly tested, viable approach. There's no placebo, witchcraft, or 'maybe' in it. The animal studies have proven that. It works. But now, another very interesting thing happened. There had been an ongoing debate between Robert O. Becker who was Chief of Orthopedic Surgery at the Syracuse VA Hospital, and a student of his Dr. Andy Bassett, Columbia University, as to which frequencies would rehabilitate, rejuvenate and grow limbs back on amputated animals. Okay, Becker was using actually attached electrodes and putting current directly into the system. Now he and I have shared several conferences in Canada over the years. He's a brilliant man—he's rather bitter. At one time he had been nominated for a Nobel Prize for his work, but because he was a little outspoken, like some of the rest of our family, he got to enjoy a rather early retirement. He was also speaking out on the fact that the power lines were causing undue clusters of illness here in the eastern United States. But, he
had a student named Andy Bassett who has made … a device, which has been accepted by the orthopedic mainstream ethical physicians. A little magnetic paddle, which is put near the non-union fracture which, induces a current into that area by induction. Now here we have two separate approaches. We have a little ongoing discussion like Dr. Salk and Dr. Sabin. You can't get around either one of them without having them absolutely assassinate the other one. … This discussion [Becker vs Bassett research] became so heated that some funds were laundered and sent to Great Britain to find out just what was really going on.

The results of this were reported for the first time publicly at a conference in Quebec last year by the principle investigator from Cambridge. A person of female persuasion by the way, who finally located the secret frequency that was causing the tissue to rejuvenate. In the case of a rat they would amputate an extremity and put on the electrode. The blood seepage would indifferentiate, go to the area and start growing the tissue which had been there originally, as though there had been some type of architectural pattern that had restored the memory of the RNA, DNA close to the site to reproduce the proper tissue. It didn't turn into kidney tissue or brain tissue or testicles, it turned into whatever happened to have been there before the amputation.

In human beings, young children, they have grown fingers back. If you follow this—it is an extremely delicate subject because they're not supposed to be doing this with human subjects. But when they get off the conference, they will talk to you about what has actually been going on with this. Now, they ran many, many, many animal studies. They held a frequency constant and varied the waveform, they held a voltage constant and varied the frequency, and they held the voltage and frequency constant and varied the pulse repetition rate. One of the three magic numbers was publicly disclosed at this conference a year ago last August in Canada.
It was very much unsuspected. It was over 2 kilohertz. I can't, well, I can give it to this group—2.72 kilohertz. When that particular frequency was in the shotgun effect of the device, the limb re-grew. When it was filtered out or when the slope of the curve was altered so that that frequency was not predominant, it didn't grow. Now there are three other magic numbers, which caused the rejuvenation, the healing, rapid re-stimulation of the neuro-transmitters. These were developed on another government grant program and I am not at liberty to tell you what they are.

Beck's Brain Tuner Frequencies

But, they are in the little box that we built. We did very elaborate spectrum analysis work on all of the units that we could beg, borrow or steal. These are computer printouts, spectrum analysis sheets, of over two dozen brain tuners … We found the majority of these devices were hit or miss—they didn't have the magic numbers but they had enough fairly rough harmonics. You know, it's so ridiculous for the people selling these devices to claim certain frequency effects. How many engineers do we have here? Well, you've played around with radio … uh, frequency is a useful term only if you're dealing with coherent waveforms such as a sine wave. If you have a square wave, by definition a square wave has an infinite number of odd harmonics, right? That's what a square wave
is. So that means if you put a 10 Hz (hertz) square wave into somebody, you have

every other odd harmonic of that from DC to light if it passes the system. Is that correct? So here are people putting out square wave boxes that they say will tune from X number of hertz to X number of hertz and they're looking at the pulse repetition rates and confusing them with the frequencies.

Now these are things we find absolutely abhorrent, … Well, we hope that in these years
where more and more people are talking about electronic medicine—which has to be the medicine of the future—that some of these basic misconceptions will be clarified.
So we began experimenting in earnest. Thank God I had access to an IQS Model 401 Spectrum Analyzer which is probably the most advanced thing that I could get my hands on for under ,000 at Hewlett Packard. And then we began looking at these frequencies in earnest. We eliminated the need for ever tuning the device. How many of you are familiar with the AccuScope?

I'm going to use this as an example. Terry Fisher, like the rest of us, realized that perhaps the most innocent people with whom you can deal are medical doctors. And here are these two dials that have various frequency settings, and the doctors very seldom read instructions. So Jerry came up with a marvelous idea. He got some different colored scotch stick-on masking tape and cut little dots that are red and orange and green and yellow and paste these dots on the dial. Now we can tell the doctor match up the yellow dot with the yellow dot. This made it almost idiot proof and so there was no need to talk of specific frequencies … which is ridiculous when you're dealing with anything other than sine waves, anyway. You match the dots. He would come back months later and
find that the device was still set on the same dots as when he walked out of the office and it was working fine. So everybody was happy.

All of this apocrypha is now being replaced by hard Science in these conferences. I've
attended a number of them. They say electricity is the thing which makes you better, etc., etc. At any rate this was the political state of affairs in 1983 when a lot of people who did not know the difference between frequency and pulse repetition rate and had never heard of heterodynes and harmonics, were looking for the Holy Grail. The way they normally did this, they put the box on the dope addict and they would just juggle a dial and say, "How does this feel, how does this feel, how does this feel?" It was a fairly empirical process. How many of you read the Omni article in January 1983? You notice there that the main secret of making the person better was to twiddle the knob because at that time they did not know what the frequencies were.

It has been fairly well established that the beta-endorphins are stimulated with a pulse repetition rate of between 90 and 111 hertz., ,
The catecholamines at around 4 hertz, the enkephalins at another number, etc., etc. This work has been very well documented and very well replicated by a number of scientific laboratories.

So what we decided to do in, our box, was to put all of these frequencies simultaneously. Now some people said, "Well, shouldn't you do one and then another and then another." And it's turned out not to be this way at all. If you have a Hi Q circuit you can put white noise into it and ring the filters, right? And the brain is an exceedingly Hi Q circuit. It appears to have a Q in certain of the neuronal constructs of around 3,000. Which is amazingly high. What is Q? Q is the figure of merit. Q means the band pass versus the energy required. A crystal set will get all the radio stations in the area at once. A super heterodyne or TRF will get narrower and narrower bandwidth. If you have a triple or double conversion super heterodyne, you can separate two stations that are within a kilohertz of each other. The difference between those is the Q of the circuit, which is tuning to the signal. The higher the Q the lower the band pass, the less the interference.
We have all of the frequencies simultaneously. This generates a sine wave of ten hertz at
milli-volts and it requires about 25 volts minimum threshold to stimulate them.

We use all 200 frequencies. Would you like to see the spectrum analysis of this? We put them in bundles. We think that some physiology … for example an old person and a young person might have slightly different frequencies. So when we are hitting the beta-endorphins we center it. For example if this is the target frequency, we put out enough on each side of it in these three magic ranges: encephalon, catecholamines and beta-endorphins. These seem to be the most active known neuro-transmitters. We've used a bit of a shotgun approach instead of a rifle. When we work the lower frequencies for the catecholamines, each one of these clusters show the simultaneous frequency spectrum by Fast Fourier Transform (FFT) each millisecond. In each one thousandth of a second, this bundle of energy is supplied to the points. Now it was rather difficult to do that because we had to buy reverse Fourier transform, find out what fundamentals would recombine and heterodyne to give us exactly the spectrum that we want. If you hold a prism to the light and you have white light, you can separate that into red, orange, yellow, green, blue, indigo violet. You can recombine those with three basic colors to get white, but you have gaps in it. If you look at that with a spectroscope, if you look at a fluorescent lamp, you'll find it's not a continuous spectrum.

Fast Fourier Transform (FFT) Spectrum Analysis in the Frequency Domain of the original BT5

So we developed a system. We broke the price barrier, most of the units on the market, sold for ,000 up. This Brain Tuner has everything that was necessary for the brain to rehabilitate it's own production of neuro-transmitters. In the meantime we had found about 200 pounds of literature—at least I have that many boxes full of Xerox material that friends had sent me—literally cardboard cartons full. My filing system is abysmal. I'm very creative—I just pile it in boxes and hope I can find it later. Of the work that had been done absolutely establishing that any stress related syndrome—and this is why the psychologists hate this device. The stress-related symptoms that are recognized are: insomnia, addiction, anxiety and depression. About 95% of the people who use these devices for a period of less than a month, find complete reversal of these symptoms.

And here the psychologists that have been talking to them for years at to an hour.

The pharmacologists have been giving them mood-elevating, depressing and altering drugs since the good old days of Milltown and into the more elaborate pharmacology. …

So naturally there was a great deal of resistance to this type of technology. So right now

there's this political hassle happening over the fact that even the Carnegie Report, the study back at the turn of the century, tried to damn all of the electronic medicine that had been proven back in the 1890's to be highly effective. And you know who funded those studies. It's very much like the American Tobacco industry saying that the link between lung cancer and smoking? There isn't any. So we could go on and on about this. Basically that's what the device is. That's how I started to do it. I hated to see people being charged $1,000 a day and the thing just grew and grew and grew and grew.

Fast Fourier Transform (FFT) Spectrum Analysis in the Frequency Domain of the improved BT5pro

Tens Devices and Politics of Health

Apparently a number of TENS (Transcutaneous Electro Nerve Stimulation) devices like the AccuStim and AccuScope are being used in sports medicine. But they are basically being used to relieve pain. TENS units have been around for about 100 years. When Norm Shealey saw the little device from the barber shop that had an

induction coil and a flashlight battery and a handle that you roll up and down your back, he had thought this was a good idea and brought out one of the first transistorized TENS units. By the way, there's an interesting story. The Stemtech Company was purchased by Johnson & Johnson, I'm sure you're aware of the litigation that came down. And a few years ago, the president of Stemtech, took Johnson & Johnson, which is one of the largest pill
manufacturers in the United States, they make Tylenol, Super Tylenol and what have you— hundreds of other products. They took them to court saying, "you've suppressed this technology."

They won. The judge said, "In 30 years on the bench, I have never seen a more flagrant violation of trust" (this was reported in a number of magazine articles.) Johnson & Johnson appealed the 130 million dollar judgement against Johnson & Johnson and lost the appeal. The inventors of the Stemtech which is only one of maybe 20 or 30 TENS units, then got back in motion.
The judge pointed out that it wasn't to the advantage of Johnson & Johnson to have anything to relieve pain if they were in the business of selling Tylenol. So that's a matter of public record that the drug companies try to suppress this type of technology. That was a pretty big lawsuit—it made a lot of headlines. That's typical … you see we're not dealing with a scientific problem with this type of instrumentation, we're dealing with a socio-political-economic problem. The government on one hand subsidizes the tobacco growers and on the other hand says you have to put a warning on the
packages. But the tobacco growers generate so much tax revenue that they're in this double bind. This thing is a political problem not a scientific one. The same thing is happening with the new emerging electronic medical devices. Germany has some of the most amazing things, the Mora Unit—you're familiar with that … the Dermatron. These things do almost psychic diagnostic work. And yet they're totally outlawed in this country.

We've had one complaint from a number of professional users. They say "For God's sake, take that thing and put it in a great, big box, put a lot of dials and bells and whistles and light-emitting diodes and switches on it, all of which would be dummy incidentally, and charge five or six thousand dollars for it. Then people will have faith in it." And I
say "Well that's criminal." But anyway that's my philosophy.

Early Research Studies

Okay, the results of this on drug addicts were generated in the US several years before Meg learned about the device in Hong Kong. And the vast literature on this was funded by the Neuro Systems Group in Garland Texas. How many of you have heard of the Executive Monkey study. This work was funded by the people who brought this box out originally in 1970. This is before Dr. Wen had his serendipity, his accidental discovery, with the heroin addicts in Hong Kong. I didn't realize you could give monkeys ulcers. But what they had done was to aggravate them enough to where they had ulcers and put the device on their acupuncture points. They found that within about three days they had reversed the pH, the acidity, and the monkeys got better—the control group.

All of this work had been thoroughly done long before this current era of re-stimulation of interest. The rat studies had been done both in San Francisco and in Hong Kong. The chromatography had been done here in the United States, so it was well controlled.
Like electronic medicine, when we were looking at patents, we found a patent in 1893
showing a fellow with electrodes behind his ears. Okay, 1893, before the Harrison Act, some 20 some years before the Harrison Act you could go into any drugstore and buy morphine sulfate. Mothers whose babies cried could buy simple soothing syrup, which was sugar and morphine. She'd give a teaspoon to the baby and the baby wouldn't cry anymore. There were quite a few addicts. The stuff was legal, there was no control. I mean marijuana was legal. After the Act, a number of people who were trying to get off this had forgotten that around 1890 we had a hell of a lot more addicts in this country. The women who were religious were sipping tonic which was about 200 proof alcohol for their health, taking bitters and what-have-you.

In other words, we had about the same addiction level. And this work had been explored about 84 to 85 years ago and then again suppressed by what we feel is the ruling class of the doctors, the pharmacies and the people who want to take your money for making you better. … Fisher, no relation to Jerry, had done this work in 1932 and 1935 and had a number of patents. Remember the Fisher Instrument Company that was making electrical stimulating devices back 40 years or so. Okay, this has been in the literature, they had explored in great depth the wave forms, the frequencies, the application modes and what-have-you.

Bob Beck's Early Research

There's a replica of the work I did in 1973. In 1969 I began building ethical biofeedback
equipment—EEG Brainwave Amplifiers. I had one foot on each banana peel, I had been a scientist and I am now a kook, so we sort of straddle this chasm. So I have taught biofeedback classes at UCLA, USC, Vilanova University of Hawaii, SMU. And when I was doing this for health professionals, I also had access to the psychic underground. In Hawaii I was able to make brainwave recordings of one of the three living bloodline Polynesian Kahunas. I was able to make brainwave EEG recordings of hexinmeisters like John Ott in Lancaster County—no relation to the fellow who did the work on light and colour. I have worked with American Indian medicine men. I've worked with Kathryn Coleman before she died. And she let me run a little telemetry test when she was knocking them down at the Shrine Auditorium. We found almost invariably that when they were in their working state—which was only a few seconds—you're here you get the information you come back, you can talk about it for hours. It's a flash, in the twinkling of an eye.

They were showing about a 7.83 hertz, almost pure coherent maybe 20 microvolt signal frontal to occipital midline. That's between F1 and F2 in the standard nomenclature system to halfway between 01 and 02 if you're an encephalographer. In other words the third eye … which shows whole brain alpha. Over and over again we found these frequencies in people with remarkable talents—healers, radionics operators, dousers, shamans, witch doctors, mystics, golden don, priests and priestesses— if they were authentic. One of our early cases was, well I'd better not mention the person's name,
and it's a world famous name. But at any rate I was intrigued enough to want to discover the common denominator … yet none of these persons would speak to the others. Kathryn Coleman thought it was the blood of the lamb that Christ had died for your sins and that's the only way to go … and some of the American Indian medicine men thought it was in the sacred cornmeal, the gourds and the feathers. Marnis and Leona had certain stones that were the dwelling place of the ancestral spirits. Well, Kathryn would think that was heathen and Marnis would absolutely laugh at a fellow in a barn in Lancaster County.