

Society for Scientific Exploration — 31st Annual Conference

Bonfire of the Paradigms

Wednesday, June 20

9:30 AM–5 PM Council meeting

6:00 PM–9:00 PM Opening Reception and Registration, *Millennium Hotel Gardens*

Thursday, June 21, *Ballroom*

Subtheme: Challenging Paradigms in the Health Sciences

8:00 Welcome and Introductions

8:10 Dinsdale Prize Award Introduction

8:15 **Dinsdale Prize Award Presentation** — Henry Bauer “Seeking Immortality: Challenging the Drug-Based Medical Paradigm”

9:05 John McMichael “Hormesis + Toxin = Therapy”

9:30 Ken Smith “The Cognitive Architecture of Placebo” Sponsored by John McMichael.

9:55 AM Morning Break

10:20 Invited lecture introduction

10:25 Richard Olree “Minerals, Genetics, and the Long-Term Effects of Cesium 135, 137, Iodine, and Strontium 90”

11:15 Maria Syldona “Anomalous Results in a DC Potential Study: Implications for Promoting Health and Well-Being in Adult Development”

11:40 Vernon Nicolas “Another Envelope Experiment with the Bengston Method of Energy Healing: New Answers, More Questions”

12:05 PM Lunch Break (Young Investigators Meeting)

1:35 Imants Barušs “Remote Healing Using Techniques Derived from Matrix Energetics: Experiment 2”

2:00 Jagdish Kohli “Effect of Bioelectromagnetic Energy on Human Cells Using Thought Transactions” Sponsored by Vijay Gupta.

2:25 Shawn Tassone “Medical Materialism: Exploring the Allopathic Paradigm through Shamanic Practices” Sponsored by Larry Dossey.

2:50 PM Afternoon Break

Subtheme: What to Think?

3:15 William Bengston “Patterns in the Acceptance/Rejection of Anomalies: A Survey of SSE Members”

3:40 William H. Kautz “Intuitive Methods in Support of a New Science and Its Associated Societal Paradigm”

4:05 Jean-Christophe Terrillon “Thomas Kuhn, Gaston Bachelard, and Mitsuo Taketani: Three Different Approaches to Scientific Change and Progress”

4:30 Samuel Webb Sentell “Why Not Sasquatch?”

4:55 Business Meeting

5:40 PM Dinner Break

7:30– ISE Meeting

9:00

Society for Scientific Exploration — 31st Annual Conference

Bonfire of the Paradigms

Friday, June 22, Ballroom

Subtheme: Challenging Paradigms in the Physical Sciences

- 8:00 Announcements
8:05 Invited lecture introduction
8:10 David Dilley “Natural Climate Pulse: Global Warming–Global Cooling–Carbon Dioxide”
9:00 Pieter Tans “Greenhouse Gases and Climate Change”
9:25 Gifford H. Miller “Unprecedented Recent Summer Warmth in Arctic Canada”

9:50 AM Morning Break

- 10:15 Richard Blasband “Weather Modification in Israel”
10:40 Robert M. Wood “Does the Planetary Torque on the Oblate Spinning Sun Affect Solar Activity?”
11:05 Andrei Apostol “Stress Forecasting in Vrancea (Romania): From Anomalies in Geophysics to the Mainstream”
11:30 Robert L. Hastings “Unexplained Aerial Incursions at Nuclear Weapons Sites Demand a Renewed Scientific Interest in the UFO Phenomenon”

11:55AM Lunch Break (Women’s Luncheon)

- 1:40 Stoyan Sarg “Theoretical Feasibility of Cold Fusion According to the Basic Structures of Matter–Supergravitation Unified Theory”
2:05 Rick Cantwell “Search for Evidence of Cold Fusion: Looking for Charged Particle Emissions Resulting from Pd-D Co-Deposition” Sponsored by Garret Moddel.
2:30 Olga Dmitriyeva “Searching for Cold Fusion: Conventional Heat Generation Processes and Measurement Artifacts in Gas Loading Experiments” Sponsored by Henry Bauer.

2:55 PM Afternoon Break

- 3:20 Fran McCabe “The Secret Life of Gyroscopes” Sponsored by Bill Bengston.
3:45 Sky Nelson “Physics, Synchronicity, and Experimenter Expectation” Sponsored by Adam Curry.

4:10 PM Panel Set-up (short break)

- 4:20 Panel Discussion — *Health in the 21st Century* Moderator: Thomas M. Dykstra
Panel: Henry Bauer, Richard Olree, John Reed, John McMichael

5:50 PM Dinner

- 7:30– Panel Discussion — *Global Warming* Moderator: Charlie Tolbert
9:00 Panel: Henry Bauer, David Dilley, Pieter Tans, Gifford Miller

Society for Scientific Exploration — 31st Annual Conference

Bonfire of the Paradigms

Saturday, June 23, *Ballroom*

Subtheme: Challenging Paradigms in the Biological Sciences

- 8:00** Announcements
8:05 Invited lecture introduction
8:10 Thomas M. Dykstra “Challenging the Insect Olfaction Paradigm: New Evidence”
9:00 Julia Mossbridge “Predicting Seemingly Unpredictable Events Using Pattern Classification of Physiological Data”
9:25 Morris Freedman “Mind-Matter Interactions and the Brain: A Neurobiological Model of Psi”

9:50 AM Morning Break

- 10:15** Vijay Gupta “Effects of Bioelectromagnetic Energy on Okra Yields Using Thought Transaction”
10:40 Ben Bendig “Plant Sensitivity to Human Spontaneous Emotion” Sponsored by Ken Arnette.
11:05 J. Norman Hansen “A Torsional Pendulum That Detects and Measures What May Be a Form of Bioenergy”
11:30 Glen Rein “Immuno-Enhancing Effects of Longitudinal Electromagnetic Fields Generated from a Caduceus Coil”

11:55 AM Lunch Break

- 1:25** Juan Acosta-Urquidi “EEG Alpha Spectral Power is Augmented during Energy Healing”
Sponsored by Richard Blasband.
1:50 Yury Kronn “Suppressing Cancer Cell Growth with Technologically Developed Subtle Energy Patterns”
2:15 Kenny Arnette “Energy Medicine and the Chakras: Shedding Scientific Light on an Ancient Paradigm”
2:40 Mo Wheeler “Upgrading the Immune System through Multiple Composite Frequencies”

3:05 PM Afternoon Break

Subtheme: Psi Effects

- 3:30** Julie Beischel “Anomalous Information Reception by Credentialed Mediums Regarding Non-Human Animal Discarnates”
3:55 Courtney Brown “A Remote Viewing–Inspired Revision of Human History and the Nature of Physical Reality”
4:20 Chuck Lear “Consciousness and the Quantum Paradigm” Sponsored by Dean Radin.
4:45 William D. Rowe SR. “The Reeducation of a Hard Scientist”
6:15 Cocktails
7:15 Banquet

Program Committee: Adam Curry, Luke Hendricks, Thomas Dykstra (Chair)

Local Chair: Dominique Surel

EEG Alpha Spectral Power is Augmented During Energy Healing

Juan Acosta-Urquidi

This study provides objective scientific data that Energy Healers can shift brain states when engaged in healing. A broad sample of practitioners from many traditions were voluntarily recruited for this study, including Reiki, Pranic, Johrei, Faith Healing, Shamanic, Vedic, Quantum Touch, and Deeksha. A partial report has been previously communicated (J. Acosta-Urquidi, AAPB, 2009; ISSSEEM, 2010).

EEG data was recorded using Lexicor NRS-24 and Mitsar 201 amplifiers (St. Petersburg, Russia), employing 19-channel electrocap, referential linked ears, impedances ca. 5 KOhms, 250 samples/sec. Data from $N = 20$ healers (8 male, 12 female, age 40–65) were analyzed using Neuroguide software (www.appliedneuroscience.com). Peak Absolute FFT spectral power values (μV^2) were compared before (baseline resting eyes closed, EC) and during eyes closed healing state (HS). Data were statistically analyzed (paired correlated samples t -test). Healers were recorded under two conditions: with client present in the room (some healers preferred light touching of client), and distant healing (working with a distant client).

During the healing state (HS), healers shifted brain states across all frequency bands: Delta (0.3–4 Hz), Theta (4–8 Hz), Alpha (8–12 Hz) and Beta (13–40 Hz). However, the most consistent and reproducible result, found in 90% of the healers sample studied, was a statistically significant ($P < .0024$, $N = 20$) robust increase in global Alpha spectral power (mean % increase 109.5 ± 16.34). Clients receiving a healing also exhibited highly significant ($P < 0.0023$, $N = 9$) increased Alpha power (mean % increase 105.17 ± 26.17). In recent tests with a gifted healer, we demonstrated robust EEG effects, recorded from two clients, who received a distant healing (Seattle, WA, to Santa Cruz, CA). This is a demonstration of non-locality in the domain of energy healing. The unexpected finding that different healing traditions all share a common increase in Alpha power during HS is discussed.

It is emphasized that these studies measured shifts in EEG brain states; no claims as to the efficacy of the healing were investigated. Different topographic brainmaps showing that Alpha relative (and absolute) power is selectively increased in a Deeksha healer during on-site healing will be shown demonstrating the effect. Contact: jacostau@yahoo.com, www.energymedresearch.com.

Stress Forecasting in Vrancea (Romania): From Anomalies in Geophysics to the Mainstream

I.A. Moldovan¹, A. Apostol², C. Ionescu¹, A.O. Placinta², A.P. Constantin.²

¹ National Institute for Earth Physics, Magurele, Romania, iren@infp.ro

² Center for Bioseismology, New York, apostoland@yahoo.com

The Vrancea seismically active region of Romania, situated far from active plate boundaries, can be characterized by small–large intermediate-depth earthquakes and small–moderate normal depth ones. A bio-location methodology has been performed trying to map crustal faults in and around Vrancea. Bio-location measurements measured across tectonic faults and geomagnetic continuous recordings have been used in the last decade in order to correlate the data to the local and regional earthquake activity. Certain correlations had been claimed, but they have been rejected by mainstream geophysics, due to an after-the-fact subjective evaluation. As a result, a real-time evaluation and stress forecasting has been proposed and implemented during the years 2009–2012.

A stress forecasting of a large earthquake for a window of time October 22–26, 2011, was issued to the National Institute for Earth Physics (INFP), on October 21 at 10:00 AM. A large earthquake magnitude 7.2 was recorded in Van, Eastern Turkey, on October 23. Another stress forecasting was issued on January 10, 2012, at 10:00 AM, for a moderate intermediate-depth earthquake in Vrancea, in a window of time of six days. A magnitude 4.3 earthquake was recorded ten hours later. This time the bio-location anomaly started in the same day with a geomagnetic anomaly.

However, our data suggest such anomalies can be related to the resistivity anisotropy and magnetotelluric wave splitting (MWS) around crustal faults nearby and not to possible phenomena at the focal region, as previously reported. On the other hand, the resistivity anisotropy anomalies recorded around tectonic faults are possible related to stress variations in magnitude and direction observed before, during, and after moderate–large local and regional earthquakes. Finally, a valid earthquake prediction is not possible, but stress forecasting is able to offer some data before local and regional moderate and large earthquakes.

Energy Medicine and the Chakras: Shedding Scientific Light on an Ancient Paradigm

J. Kenneth Arnette, Transpersonal Institute for the Scientific Study of the Paranormal

Chinese medicine is an ancient medical art based on the concept of qi, or vital life energy, and its role in the health of the body. Essentially, disease is seen as an imbalance of qi, and treatment of disease is accomplished through methods that re-balance this energy. Examples of these treatments include acupuncture, herbs, Reiki and related methods such as Healing Touch, cupping, and many other approaches.

In the theory of Chinese medicine, *chakras* play a vital role. These entities are seen as energy centers in the body, and energy-balancing methods focus on these centers. But from a Western perspective, chakras are poorly understood, if at all. I propose a new, scientific way of understanding these ancient ideas, based on known classical physics (electromagnetism) as well as recent theoretical developments in physics (string theory). I will present a dualistic model in which the human being is composed of two parts, a physical body that generates an oscillating electromagnetic field (EMF), and a non-material entity (“essence”) that also generates an oscillating EMF. That is, while the essence is *not* composed of matter, it *is* made of a substance that has the “physical” property of generating an EMF. For the purpose of model construction, the body and essence can be seen as two oscillating dipoles interacting via their EMFs. These two fields interact via constructive interference, producing an interference pattern (similar to a double-slit experiment) that manifests as alternating nodes and crests along the spinal cord. The strength of this interaction and thus the interference pattern is a function of the match (or mismatch) of the oscillation frequencies of the two EMFs: when the two fields oscillate in phase, the interaction is maximized and optimal health can be realized; as the oscillating dipoles lose phase coherence, the interaction strength decreases and the body’s health can suffer as a result.

I hypothesize that Chinese and energy medicine treatments have their basis in adjusting these oscillation frequencies to re-establish phase coherence and strengthen the interaction between body and essence, leading to health improvement. Unfortunately, physics is incapable of addressing a system in which one dipole is not material, and overlaps with a dipole that is material. I therefore will present a simplified model that will demonstrate the properties I have described through a straightforward qualitative analysis.

Remote Healing Using Techniques Derived from Matrix Energetics: Experiment 2 Imants Barušs

At the 2010 meeting of the Society for Scientific Exploration I presented A Preliminary Study of Remote Healing using Techniques Derived from Matrix Energetics and said that I would report the results of Experiment 2 at a further meeting. In Experiment 2, a volunteer participant would be sent an e-mail indicating a time at which I would begin a healing session and be asked to respond on a six-point Likert scale to three questions asking whether anything unusual was experienced at the time of the session, whether the participant felt more fatigued than expected, and whether the participant felt more energized than expected. Then I would flip a coin to determine whether it would be an experimental session in which I would engage in remote healing or a control session in which I would do nothing further. In addition, in the event of an experimental session, I filled out two self-measures on ten-point Likert scales for the degrees of absorption and the nonduality of consciousness at the time of the remote healing effort.

A total of 111 sessions [53 control, 58 experimental (average length = 21 minutes; SD = 7 minutes)] were conducted by the experimenter for 22 volunteer participants from May 26, 2010, to April 15, 2011. All of the measures were in the predicted direction and the absolute value of the difference between the degrees of self-reported fatigue and energy was statistically significantly greater for experimental sessions ($M = 2.09$) compared to control sessions ($M = 1.57$; $z = 1.72$; $p = .04$, one-tailed). There were no correlations with the self-report measures. The often apparently accurate remote viewing of participants, the metaphorical nature of imagery used by the experimenter, the failure to find any effects of absorption or the non-dual state of consciousness of the experimenter, the types and manner of apparent effects on participants, and the possible beneficial effects of the control condition will be discussed. Given that there is some evidence of remote influencing in this experiment, it could be fruitful to continue this line of investigation with this type of protocol in order to determine the parameters modulating the apparent anomalous effects of conscious intention on physical manifestation.

Bio: Imants Barušs is a Professor of Psychology at King's University College at The University of Western Ontario where he lectures on consciousness. He is the author of 4 books, 32 academic papers, 20 reviews, and 73 presentations. His books include *Alterations of Consciousness* (American Psychological Association, 2003) and *Science as a Spiritual Practice* (Imprint Academic, 2007). He is a member of the Society for Scientific Exploration and the New York Academy of Sciences.

Seeking Immortality? Challenging the Drug-Based Medical Paradigm

Henry H. Bauer (invited speaker and 2012 Dinsdale Award Recipient)

Chronic ailments—arthritis, cancer, cardiovascular problems, kidney and liver and other organ failures—arise in different ways and for different reasons than do infectious diseases. Drugs have been very successful in overcoming infectious diseases, but their application to chronic ailments is illogical and harmful. Is a treatment against cardiovascular disease (for example) beneficial? Does it prolong life and improve quality of life? Valid answers would be based on very large and lengthy clinical trials controlling for innumerable variables—essentially impossible. Therefore research and applications make use of surrogate markers, measurables like blood pressure, cholesterol level, etc. But in order to determine whether a surrogate marker is an accurate measure of the state of a chronic ailment would require one of those impossible clinical trials. The use of surrogate markers is based more on faith than evidence. Worse, it assumes that correlations identify causations.

The commonly used surrogate markers are not valid. Nevertheless, drugs continue to be approved because of their effect on these markers. Further, the accelerated approval of drugs initiated in the 1990s requires only two successful trials of at least six months duration. That is not nearly long enough to test safety or efficacy, and the last two decades have seen an increasing number of once-approved drugs withdrawn after less and less time on the market because of their deadly so-called “side” effects. “Side” is a fatally misleading misnomer.

The misguided drug-based treatment of chronic ailments is facilitated by semantic sleight-of-word, calling natural conditions diseases, dysfunctions, abnormal: cardiovascular disease; hypertension; “high” and “bad” cholesterol; “pre”-diabetes, “pre”-hypertension, etc.

Outstandingly illogical is the approach to blood pressure. For more than a century it’s been known that blood pressure normally rises with age. But nowadays “hypertension” is defined by the same number irrespective of age, so that the average person normally attains “hypertension” at about age 60; some 75% of American seniors are treated with drugs to lower what is the normal pressure for their age.

Blood pressure increases with age. Mortality increases with age. The incidence of cancers and of organ failures increases with age. Everything that increases with age is correlated with everything else that increases with age. Therefore blood pressure is correlated with every chronic ailment, but it doesn’t necessarily cause any of them.

Contact: hhbauer@vt.edu, www.henryhbauer.homestead.com.

Anomalous Information Reception by Credentialed Mediums Regarding Non-Human Animal Discarnates

Julie Beischel

Experts from numerous fields have suggested that we are not as different from non-human animals as we once believed. The new interdisciplinary field of Human-Animal Studies clarifies the necessity for researchers to cease neglecting the importance of human-animal relationships in the various aspects of our existence. This is true in general for parapsychology and related fields and specifically for research regarding the survival of consciousness after the physical death of the biological body. Although the presence of psi in human interactions with living animals has been studied for numerous decades, studying those connections once a companion animal has died addresses a new aspect of those relationships.

Individuals with close connections to animals grieve their losses similarly to the losses of human spouses, parents, children, etc. It follows logically that the motivation to communicate once an animal has died—from both the living person and the discarnate animal—would be similar to that which arises after the death of a human loved one. Indeed, animals are regularly present in reports from near-death experiences and other after-death phenomena and dogs, cats, horses, birds, and rodents have spontaneously appeared in our own research readings for discarnate humans performed by Windbridge Certified Research Mediums (WCRMs; i.e., mediums whose abilities to report accurate and specific information about discarnate humans has been repeatedly demonstrated under blinded conditions during screening and research at the Windbridge Institute).

In addition, we have heard numerous anecdotes about people feeling the presence of deceased companion animals or having other after-death experiences related to animals. To address these phenomena empirically, the current study employed established, published methods from mediumship research to determine if WCRMs could report accurate and specific information about the deceased companion animals of living guardian sitters under quintuple-blinded conditions using anomalous information reception. The accuracy data collected to date from this in-progress study (e.g., item scores, whole-reading scores, and forced-choice binary selections) will be discussed. The results of this study will help elucidate the nature of consciousness by addressing the survival of consciousness after bodily death in a non-human animal population.

Plant Sensitivity to Human Spontaneous Emotion

Ben Bendig (sponsored by Ken Arnette)

The question of plant consciousness made waves in the 1960s and '70s with the publication of research by lie detector expert Cleve Backster (1968) and the popularization of his work in *The Secret Life of Plants* by Tompkins and Bird (1973). By measuring electrical resistance in the leaves of plants, Backster demonstrated that plants were sensitive to events in the environment, including threats to the plant, death of nearby organisms, and human interaction, particularly human emotions. The current research sought to replicate some of Backster's findings, focusing on spontaneous emotion during human interaction. Plant electrical activity was measured with a GSR device during conversations involving the experimenter and acquaintances, using a plant that the experimenter had cared for (*Schefflera Arboricola*, Trinetto variety), for a duration of more than two years.

Comparisons were made of activity during 4-second intervals of time with the presence of emotions (e.g., anger, surprise, embarrassment) versus 4-second intervals of no activity in the room containing the plant, revealing a highly significant difference ($p < .0001$). A comparison of the emotional intervals against all other human interaction intervals was also highly significant ($p < .0001$). Controls employed indicate that these differences are not due to temperature, sound, or movement. Movement artifacts are particularly important to control for, as nearby movement produces electrical changes in the leaves, even without contact. Interaction intervals with possible movement artifacts were excluded from the calculations.

The importance of genuine emotion in evoking these responses points to the necessity of ecologically valid and spontaneous situations for a proper scientific study of plant perceptual responses. Further work needs to be done to replicate findings about long-distance effects, as well as other "Backster effects" involving single celled organisms and human cells. Additionally, the nature of the signal and the reason for electrical manifestation of these responses are in need of further investigation.

Contact information: Ben Bendig, M.A., C.Phil, UCLA Department of Psychology,
bbendig@ucla.edu

Patterns in the Acceptance/Rejection of Anomalies:
A Survey of SSE members
William F. Bengston

I recently administered an email survey to 488 present and 1471 former SSE members, asking about their acceptance or rejection of ten selected anomalies that have been featured in our publications and conferences. Respondents were also asked about the extent of their knowledge of each of these anomalies, and whether their opinions have been influenced by published work, personal experience, or presentation by a credible authority. Background questions included degree and area of advanced training, whether they are actively involved in conventional and anomalies research, and whether they regularly read our publications.

349 respondents claimed to be current members, and 79 self reported themselves as former members, for a total of 428 usable responses. These response data are analyzed to determine the degrees of acceptance/rejection of the various anomalies and the predictors of opinion. These predictors supply the basis for understanding how individuals shift their interests towards anomalies, as well as providing suggestions for potentially increasing interest in anomalies research.

Bill Bengston is a professor of sociology at St. Joseph's College in New York, and President of the SSE. His research has produced the first successful full lifespan cures of transplanted mammary cancer and methylcholanthrene induced sarcomas in experimental mice by "energy healing" techniques that he helped to develop. He has also investigated assorted correlates to healing such as geomagnetic micropulsations and EEG harmonics and entrainment. Contact: wbengston@sjcny.edu.

Weather Modification in Israel

Richard Blasband

In 1983, I conducted a weather modification operation in Israel (sponsored by Richard Fox, a Philadelphia businessman). For the previous six years the water level in the Sea of Galilee had decreased every year until reaching dangerously low levels in 1983. Most farming in Israel depends upon water from this source.

A reconnaissance the previous year and the clearing of all potential legal issues paved the way for our beginning operations in January, when the rainy season usually begins. At that time certain meteorological factors come into play, which will be described in the oral presentation. Needless to say we wanted to optimize our possibilities so began working in Haifa at that time.

I and my companion, who provided major assistance throughout the entire trip, utilized a device that Wilhelm Reich had invented that he labeled the "cloudbuster" because of its ready ability to break up clouds when operated in a certain way. It is a simple apparatus made up of six (in our work) ten-foot-long metal pipes 1/12 inch in diameter, "grounded" by flexible metal cable into running water. The pipes are attached to a wooden "Lazy Susan"-type base that can be readily rotated and elevated.

Utilizing what Reich called the "orgonomic potential" in the atmosphere one is able to have clouds concentrate and, in time, produce rain over the site of operations. This is functionally the reverse of cloudbusting.

Operating at the beach with the pipes grounded into the Mediterranean Sea on a cloudless day with no rain or clouds in the past several weeks and no rain expected within 48 hours, the limits of accurate prediction in those days, we succeeded in bringing clouds and rain within 24 hours at the Haifa location. Utilizing essentially the same type of operating protocol we moved in leaps south along the coast generating rain at each stop as the storm systems built and followed us.

Moving East we crossed Israel, stopping once before arriving at the Negev, the vast desert which makes up a good part of Israel. Operating in the desert and then at Elat, at the southernmost tip of Israel, we succeeded in bringing rain to most of the state, including the desert.

Weather reports noted that the water level in the Sea of Galilee was above that expected for that time of year and that rainfall there on the 24 and 25th of January, when we were in Elat, was heavier in the South compared to what it was in the North, an anomalous situation, but consistent with our intentions.

A Remote Viewing–Inspired Revision of Human History and the Nature of Physical Reality

Courtney Brown

The time is now appropriate to utilize the extant remote viewing research to draw basic conclusions about our understanding of physical existence and even human history. Drawing from an extensive collection of studies conducted both at The Farsight Institute and independently, Courtney Brown will outline some basic and fundamental lessons that seem inescapable from this research. These lessons include the non-solidity of physical matter, the illusion of time and the existence of simultaneous sequentiality, the vibratory nature of the universe, as well as radical revisions to the understanding of basic human history. These lessons differ dramatically from what is taught in schools today, and they offer a direct challenge to some of humanity's most sacred beliefs.

This presentation will connect the dots while offering a daring perspective on using remote viewing for both scientific and historical research. The presentation will also offer suggestions as to why humanity appears so resistant to accepting these new ideas, suggestions that are based not on psychology, but rather quantum mechanics. Many of the comments made will focus on macro-level physical implications of the superposition principle that operates on the quantum level. The logic of how multiple macro realities can coexist without “bumping” into one another will be explained.

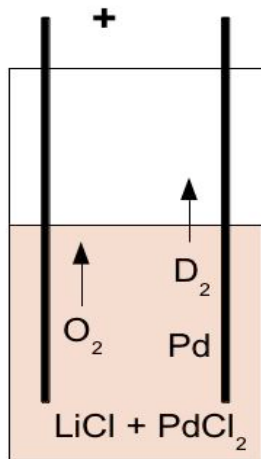
This will also address the issue of why the past and future are not visible to normal observation, despite being available to remote viewing perception. Finally, he will discuss the illusion of physical distance, and explain why distance is a result of constructive and destructive interference processes. This will also yield insight into the localized limitations of General Relativity. On a more practical level, this presentation will explain the basic principle behind faster-than-light travel, both in terms of information that is conveyed through the remote viewing process, as well as the implied requirements necessary to achieve physical faster-than-light travel. All of these ideas will be tied together by an interpretation of quantum mechanics generalized to the macro level.

Bio: Courtney Brown is a college professor and Director of The Farsight Institute. He has recently published a book on the science of remote viewing titled *Remote Viewing: The Science and Theory of Nonphysical Perception*.

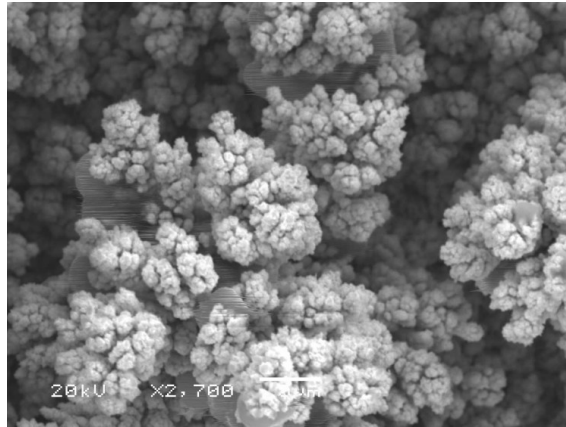
Search for Evidence of Cold Fusion: Looking for Charged Particle Emissions Resulting from Pd-D Co-Deposition

Rick Cantwell* & Matt McConnell (sponsored by Garret Moddel)
Coolescence LLC, 2450 Central Ave Ste F, Boulder CO 80301, U.S.A.
Contact: rick@coolescence.com

Pd-D co-deposition, the simultaneous depositing of palladium and deuterium onto the cathode of an electrolytic cell, has been reported as a reliable method for the initiation of cold fusion. More recently Pd-D co-deposition has been reported by Mosier-Boss et al. in 2007 and 2009 in order to generate charged particles. In this work a CR-39, a solid-state particle detector, is used to record evidence of charged particles. We have used these techniques as well as electronic detectors to look for charged particles emitted during Pd-D co-deposition. We examined whether conventional processes might account for some of the charged particle observations.



Pd-D co-deposition cell



Pd deposits formed by co-deposition

The earlier work suggests anomalous nuclear products are responsible for tracks observed on CR-39 detectors. CR-39 pits similar to those reported by Mosier-Boss et al. were found using both *in situ* CR-39 and Mylar-protected CR-39. However, CR-39 protected by a combination of Mylar and a small air gap did not show any pits. The electrolyte, as its chemistry changes during the electrolysis, is shown to damage the acrylic cell containing the experiment and to damage an aluminum foil separated from the electrolyte by a Mylar film. This damage together with the absence of pits when a small air gap is added to the Mylar protection suggests chemical reactions may be the source of the observed CR-39 pits. The absence of any detected charged particles using a YAP:Ce scintillation detector further supports the conclusion.

Natural Climate Pulse
Global Warming–Global Cooling–Carbon Dioxide
David Dilley (Invited Speaker)
Global Weather Oscillations Inc.

The United Nations Intergovernmental Panel on Climate Change (IPCC), media and governmental agencies, often release alarming news snippets of climate research based on a very brief history of Earth's climate (100 years). In the process, they disregard natural climate cycles that Earth has experienced during the past half million years, and insinuate human activity (especially carbon dioxide levels) is causing severe weather events that have never happened before.

We have all experienced severe weather, and can recall similar situations in the past. These are called climate cycles. A good example is the historical tornado outbreak killing nearly 1,000 people in the mid 1950s and again in 2011. There is also the historical Mississippi River Flood of 2011 and four other historical floods during the past 90 years. Generally speaking, droughts, blizzards, heat waves, major hurricane landfalls, major earthquakes, and volcanic eruptions continue to recur in well-defined cycles.

Global Weather Oscillations Inc. (GWO) formed in 1991 with the specific understanding that weather and climate occurs in cycles. If you understand the natural mechanisms that control climate oscillations, you can predict climate cycles well into the future, but what about global warming? Is it caused or greatly exacerbated by human activity? Is carbon dioxide really a bad gas as suggested by the IPCC? Does it perpetuate warming and change Earth's climate forever? Or, is it more likely that Earth is merely experiencing a natural global warming cycle, and the current high levels of carbon dioxide is just a natural cycle, even highly beneficial for photosynthesis and the resulting oxygen production?

All of these points will be discussed in light of mainstream research, as well as new climate cycle research by GWO and other research groups. Much of this information has not been disseminated to the general public by the media, Federal Government or the universities. Instead of snippets, Mr. Dilley's presentation provides a step-by-step guide through Earth's Natural Climate Pulse during the past half million years. We will examine nearly 2,200 cycles during the past half million years, including the interstadial warm cycles that occur approximately every 116,000 years, and the 10,000-year carbon dioxide cycle. The temperature cycles, carbon dioxide cycles, and natural mechanisms will all be tied together in order to provide a complete picture of Earth's climate in the past, and into the future.

Bio: Mr. Dilley is a Meteorologist with over 40 years of climate/weather research and forecasting experience. He is CEO of Global Weather Oscillations Inc. (GWO). He is the author of the peer reviewed eBook *Global Warming–Global Cooling, Natural Cause Found*, and the booklet *Earth's Natural Climate Pulse*. Mr. Dilley's research isolated one of the main drivers of climate cycles, and he has incorporated these findings into climate forecasting models. The models forecast hurricane landfalls and the El Niño up to four years in advance, historical major earthquakes, and other earth/climate cycles. He is a member of the American Meteorological Society (AMS), the National Weather Association (NWA), former Meteorologist with the National Weather Service, former Co-Host of the radio talk show "the Politically Incorrect Weather Guys," and will be appearing in the documentary film "the Boy Who Cried Warming" to be released during the winter of 2012. Contact: davidgwo@aol.com, www.GlobalWeatherCycles.com.

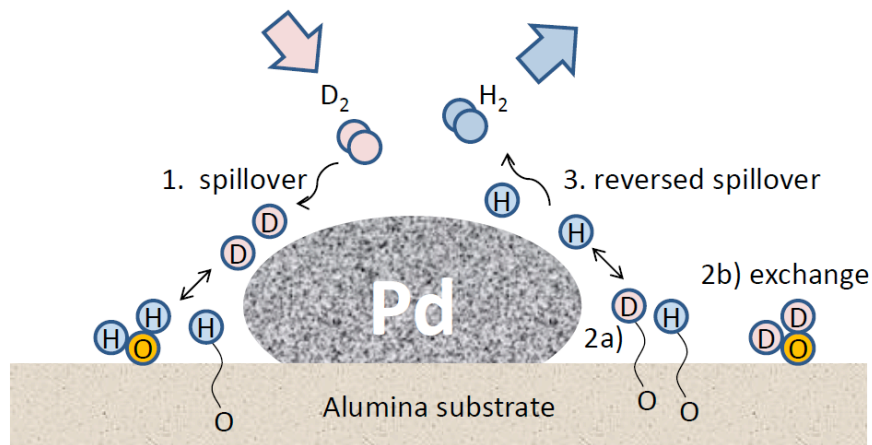
Searching for Cold Fusion: Conventional Heat Generation Processes and Measurement Artifacts in Gas-Loading Experiments

O. Dmitriyeva^{1,2}, R. Cantwell², M. McConnel², and G. Moddel¹ (sponsored by Henry Bauer)

¹ Department of Electrical, Computer, and Energy Engineering, University of Colorado,
Boulder CO 80309-0425, U.S.A. Email: olga.dmitriyeva@colorado.edu

² Coolescence LLC, 2450 Central Ave Ste F, Boulder CO 80301, U.S.A.

Experiments in low-energy nuclear reactions (LENR), which used to be referred to as cold fusion, have been reported for liquid electrolyte (the Pons-Fleischmann effect) and gas phase systems. Many laboratories have observed excess heat in these systems and interpreted this as evidence for nuclear reactions. We have replicated and carefully analyzed the results of gas phase reactions. In the experiments reported here, we examined whether conventional heat-generation processes and measurement artifacts could account for at least some of these observations.



Depiction of H/D exchange reaction in Pd-impregnated alumina

We carried out an experimental study of excess heat production during hydrogen and deuterium loading of Pd-, Pt-, and Ni-enriched material. Earlier studies have shown that a conventional hydrogen/deuterium (H/D) chemical exchange reaction in water can account for at least some of excess heat observed during gas-loading experiments. We have found that metal in its nanoparticle form catalyzes H/D exchange reactions in the material and produces heat that might be mistaken for a nuclear reaction. That excess heat can be eliminated by prebaking the material in vacuum at 390°C, thereby removing residual water. We also studied the influence of temperature gradients on heat measurements. The presence of gas changes drastically the heat conduction inside the vessel. Therefore, when under pressure, the heat transfer efficiency changes. This change in heat transfer in the presence of temperature gradients artificially shifts the temperature measurement baseline, which could be mistaken for excess heating. We suggest it is crucial to test the measurement system with inert gas to eliminate potential measurement errors induced by temperature gradients.

Challenging the Insect Olfaction Paradigm: New Evidence

Thomas M. Dykstra (Invited Speaker)
Dykstra Laboratories, Inc.

Entomology textbooks report that a given insect smells an odorant when the odorant passes through tiny holes in the insect's sensillae, latches on to an odorant binding protein, is transported across the sensillar lymph via diffusion, and then somehow binds with an odorant receptor on the dendritic membrane.

If obeying the laws of diffusion, the odorant cannot reach the dendritic membrane in time. Therefore, in an attempt to speed up the process, electrostatic attraction is brought forward as a new mechanism. After analysis of charges on the dendritic membrane (positive) as well as the charges on pheromone binding proteins (highly positive), electrostatic repulsion is instead determined to be occurring, further invalidating the textbook paradigm.

Research with frog oocytes (eggs) has revealed that odorants can activate (via ion flow) the oocyte, once insect odorant receptors are expressed in its plasma membrane. Activation definitely occurs, but binding has not been demonstrated, only assumed. Since binding is all but impossible *in vivo*, the question remains as to how the odorant activates the receptor *in vivo*, and *in vitro*, and if the mechanism is the same for each. Adding to the doubt, the binding sites on the odorant receptor have not been determined yet.

Research with liposomes has also revealed that odorants can activate the artificial membrane when insect odorant receptors are expressed in its membrane. However, this effect was also demonstrated with non-odorant receptor proteins where binding is not at all likely. If binding cannot reasonably occur, then maybe activation of the odorant receptor is occurring at a distance. If at a distance, then electromagnetics may be implicated.

The transfer of electromagnetic energy is assisted by certain media. An ionic solution can provide the necessary medium. All biological tissues contain ionic solutions. Not only does this include the insect sensilla, but the insect effectively protects this particular ionic solution from corruption via supporting cells and biological pumps. In addition to the usual salts found within living organisms, there is also the added charge benefit of the aforementioned binding proteins. Supporting evidence for charged media in arthropod sensillae comes from crustaceans, as well as from the frog oocytes and the liposome research mentioned above. In each case, activation either occurs with a charged medium, or increases in intensity with an increasingly charged medium.

Unable to satisfy the current theory of insect olfaction using physical laws, and in light of the evidence brought forward by frog oocytes and liposomes, a new theory needs to be proposed. Support for an electromagnetic theory is presented from a wide variety of sources so that a cross disciplinary approach may enable olfactory scientists to investigate this process further.

Bio: Thomas Dykstra is owner of Dykstra Laboratories, Inc., based in Gainesville, FL, USA. The laboratory is devoted to research and development in the field of bioelectromagnetics (how electromagnetic fields influence life). Mr. Dykstra has consulted with engineers, agricultural scientists, academic institutions, government agencies, and private companies. He has travelled internationally to present lectures on diverse topics covering entomology, olfactory physiology, biophysics, paramagnetism, neurobiology, and antennae.

Mind-Matter Interactions and the Brain: A Neurobiological Model of Psi

Morris Freedman

Despite an extensive literature on psi, there has been little emphasis on neurobiological mechanisms underlying this phenomenon. This presentation will focus on research related to a novel neurobiological approach to studying psi and is based upon the theory that the frontal lobes serve to inhibit psi. This concept implies that humans may have innate psi abilities that are biologically suppressed by the frontal lobes.

The rationale for postulating a psi-inhibitory role for the frontal lobes relates to their mediation of self-awareness. Mental states that have been associated with psi include an immersion leading to loss of awareness of oneself and immediate surroundings, and altered mental states such as meditation and hypnosis, in which there may be decreased awareness of self. These associations suggest that psi may be facilitated by reduced self-awareness, a state that is difficult for most individuals to attain. This difficulty may explain why psi effects are hard to demonstrate and reproduce under experimental conditions. From a neuroanatomical perspective, there is an established literature relating frontal lobe function to self-awareness. Thus the frontal lobes may inhibit psi through facilitation of self-awareness. Therefore patients with frontal lobe damage may show reduced psi inhibition and may serve as a good model for studying psi.

As previously published by our group, mind-matter interactions were studied in patients with frontal lobe damage using a random event generator provided by the Princeton Engineering Anomalies Research (PEAR) laboratory. The output display was translated into movement of an arrow to the right or left on a computer screen. Subjects were instructed to concentrate on moving the arrow in the direction that it was pointing. There was a baseline condition in which the output was represented by a bar.

A significant effect was found in a patient with a large left frontal lesion. Moreover, this effect was directed contralateral to his lesion, i.e., to the right. In addition, this finding was replicated in a separate experiment. Regarding neurobiological mechanism, the patient's extensive left-sided brain lesion may have resulted in reduced self-awareness when attention was directed towards the right. In contrast, there were no significant effects in patients with bilateral or right frontal damage. Positive effects may require reduced self-awareness with relatively intact attention. Frontal lobe lesions, especially on the right, are associated with impaired attention. Thus impaired attention after bilateral or right frontal damage may have produced negative results.

The findings support the existence of mind-matter interactions. In addition, patients with frontal lobe damage may provide a good model for studying these interactions, and other forms of psi, within a conceptual framework that may maximize the likelihood of detecting effects.

Bio: Morris Freedman is a Professor, Division of Neurology, Department of Medicine and Director of the Behavioural Neurology Section, Division of Neurology, University of Toronto. He is Head of Neurology, Executive Medical Director of the Centre for Memory and Neurotherapeutics, Medical Director of the Ross Memory Clinic, and a scientist at the Rotman Research Institute at Baycrest. His research is aimed at improving our understanding of the mechanisms underlying cognitive impairment due to Alzheimer's disease and frontotemporal dementia. A major focus is on the study of social cognition in these disorders.

Effects of Bioelectromagnetic Energy on Okra Yields Using Thought Transaction

S. Letchoumanane, World Community Service Center, Chennai, Tamil Nadu, India
Vijay K. Gupta, University of Colorado, Boulder, CO,
World Community Service Center-USA, Boulder, CO

A scientific paradigm shift to replace the existing chemical and biotechnological agricultural practices worldwide is the need of the moment. Evidence of harmful effects of current agriculture on people and the environment is mounting. In our research, the use of chemical fertilizer and pesticides is eliminated, while more than doubling the crop yield. It demonstrates the feasibility to address the global crisis emerging from food shortages for a growing population.

Well-established ancient practices of India for cultivation and good harvest honored sun, soil, rain, seeds, and cows as an integral part of farming, and used Panchagavya, a product derived from cow's milk, curd, ghee, dung, and urine. Panchagavya contains micronutrients, carotenoids, flavones, phenolic compounds, steroids, and vitamins to enhance plant growth. We investigated these ancient practices on okra yield (*Abelmoschus esculentus* .L) within a modern scientific framework at the VMKYKK Research Foundation, Aliyar, Tamil Nadu.

The overarching hypothesis of our research is that plants respond to electromagnetic energy as an external stimulus. Bose (1919) conducted experiments on the response of plants to external electromagnetic stimuli. Quoting Bose, "the growing plants not only perceive but respond to the stimulus of electrical waves. These effects were found in all growing plants." Waechter (2002) reviewed extensive literature and hypothesized that "Qi energy and the Western scientific concept of ... bioelectromagnetic (BioEM) energy is the same phenomenon. The countless similarities ... suggest ... that these two concepts are ... intimately related". He further stated that "As one enters a meditative state ... the frequency of brain wave drops ..., and that BioEM field extends beyond the physical boundaries of the body into the surrounding space." We hypothesize that BioEM energy is projected through thoughts, which Rajendran et al. (2003) supported. They conducted a laboratory experiment using thought transaction in low mental frequencies on tomato plants. Their observations showed major resistance against root knot nematodes.

We systematically investigated the effect of thought transaction in low mental frequencies and Panchagavya in two plots. In the first, two-minute and five-minute thoughts were given every morning for the wellness of the crop and good yield. A control set was used against which to compare yields. The experiment lasted for 60 days. Panchagavya treatment was given as 3% spray at 10-day intervals. A second experiment was repeated with only thought transaction, excluding Panchagavya. Yield data were analyzed statistically.

Results of both the experiments showed that plants responded exceedingly well to BioEM energy using thought transaction. Okra yield increased by 121% over the control set. Panchagavya alone by comparison was found to enhance the yield by 68%. There is no significant difference between combination of thought transaction with and without Panchagavya. Our findings demonstrate that environmental pollution and health hazards can be avoided, and crop yield doubled, by adopting ancient practices that are modernized and scientifically validated.

A Torsional Pendulum That Detects and Measures What May Be a Form of Bioenergy

J. Norman Hansen

Many people believe that humans and other living organisms produce fields of bioenergy that permeate and extend beyond the periphery of these organisms. Scientific experiments designed to detect these biofields have consistently failed, so the concept of bioenergy has no scientific credibility. The idea in this experimental approach is that the devices used to detect these fields may be inappropriate in that they typically detect some type of photon energy. If biofields do not consist of components of the electromagnetic spectrum, a different type of detector should be employed. These experiments employ a detector that is designed to detect a physical “pushing” force instead of being a detector of photons. The detector used here is a simple torsional pendulum that is suspended above the subject. The experimental design includes a video camera connected to a computer that can detect and measure the pendulum movements with high precision, and store this information into a data file for later analysis.

Experiments show that the pendulum detects and measures substantial forces which drastically alter the motions of the pendulum when a subject is seated under it. The following effects are consistently observed with every subject in every experiment performed up to now.

1. Substantial shifts of the center of oscillation of the pendulum; shifts as large as 2.2 cm (7 deg) requiring a force that is equivalent to 45 mg, are observed.
2. Many new frequencies of oscillation of the pendulum are introduced when a subject is present.
3. Dramatic changes in the amplitudes of oscillation of the pendulum are observed throughout the experiment: increasing, decreasing, and increasing again, in quasi-consistent patterns.
4. These shifts of the center of oscillation, the new frequencies of oscillation, and the changes in amplitudes all persist for 30–60 min after the subject has left the pendulum. This is inconsistent with the physics of a simple harmonic oscillator such as a torsional pendulum, which should return to simple harmonic oscillation immediately after any exterior disturbances are discontinued.

It is important that the effects on the pendulum are substantial, so one does not need statistical analysis to demonstrate that these effects have occurred, because they are obvious upon inspection of the data.

After conducting control experiments, especially with respect to the possible effects of subject-generated air currents on the pendulum, it is concluded that the effects are exerted by some kind of force field that is generated by the subject seated under the pendulum. We know of no force, such as one within the electromagnetic spectrum, which can account for these results. The idea that a previously unknown force is responsible is difficult to accept. It is therefore expected that a conventional explanation will be discovered, but it is difficult to identify a conventional force that can explain these results. It is important that other investigators repeat and confirm these observations.

Bio: Professor of Biochemistry, Emeritus. Department of Chemistry and Biochemistry,
University of Maryland, College Park, Maryland USA. Contact: nhansen@umd.edu.

Unexplained Aerial Incursions at Nuclear Weapons Sites Demand a Renewed Scientific Interest in the UFO Phenomenon

Robert L. Hastings

The UFO-Nukes Connection is now thoroughly documented. Declassified U.S. government files establish a convincing, ongoing pattern of UFO activity at American nuclear weapons sites extending back to December 1948.

I have interviewed more than 130 U.S. military veterans—including ICBM launch and targeting officers—regarding their involvement in nuclear weapons-related UFO incidents. Seven of these individuals—former U.S. Air Force officers, including a deputy base commander—appeared at my September 27, 2010, press conference in Washington, DC, which CNN streamed live (<http://www.youtube.com/watch?v=3jUU4Z8QdHI>). The veterans report extraordinary encounters which have obvious national security implications. More to the point, implicit in these revelations are potentially paradigm-altering repercussions.

The events divulged leave little doubt that the U.S. nuclear weapons program is an ongoing source of interest to someone possessing vastly superior technology. Moreover, declassified KGB documents and testimony from ex-Soviet Army personnel suggest that similar incidents occurred in the former U.S.S.R. Consequently, it appears as if an as-yet-unidentified third party has interjected itself into the six-decade nuclear arms standoff in a most startling and provocative manner.

As revealed at the press conference, incidents occurred in 1967 during which significant numbers of ICBMs malfunctioned just as security personnel reported disc-shaped craft silently hovering above them. In another case, in 1980, a disc was observed to direct laser-like beams into the largest U.S. nuclear weapons depot in Europe. To dismiss these Air Force officers' detailed accounts as mere fantasies or fabrications is to suggest that those who held the fate of the entire planet in their hands during the Cold War were dangerously demented or otherwise untrustworthy. Surely, this was not the case.

While this research material does not qualify as scientific data *per se*, the statements offered by these ex-military sources make abundantly clear the need for a fresh, unbiased scientific study of the UFO subject. Indeed, the late atmospheric physicist Dr. James McDonald—one of only a handful of scientists to have actually studied UFOs—advocated a renewed examination of the phenomenon decades ago. After several authorized visits to the U.S. Air Force's UFO Project Blue Book to review its sighting reports, he wrote, "There are hundreds of good cases in the Air Force files that should have led to top-level scientific scrutiny of the problem years ago, yet these cases have been swept under the rug in a most disturbing way by Project Blue Book investigators and their consultants."

In a prepared statement delivered to the U.S. Congress' House Committee on Science and Astronautics on July 29, 1968, McDonald said, "My own present opinion, based on two years of careful study, is that UFOs are probably extraterrestrial devices engaged in something that might very tentatively be termed 'surveillance.'" Documents and witness testimony which have become available long after McDonald's death strongly suggest this hypothesis has merit and that the superpowers' nuclear weapons were one target of that ongoing surveillance during the Cold War era.

Intuitive Methods in Support of a New Science and its Associated Societal Paradigm

William H. Kautz

Modern science has unquestionably been an immense boon to the expansion of human knowledge, the development of civilization and creation of the current societal paradigm. However, it is now apparent that it suffers from severe shortcomings which are blocking its application to the study of the human mind, mind-related fields generally, and even fundamental physics and biology. The pressure to transcend these limitations is calling for major changes in the way science must be carried out and applied. In this presentation I identify these specific shortcomings and explain which of them which might be circumvented, which disregarded, and which modified to meet the emerging need for a new and more broadly inclusive science.

Primary to this trend is the need for another way of acquiring knowledge besides the traditional methodology of experimentation, deduction, analysis, hypothesizing, and verification. In 1978 to 1993 the author's Center for Applied Intuition carried out a series of experiments to elicit, from a team of highly skilled intuitive individuals, new and useful information that had not been obtainable scientifically. Employing the method of intuitive consensus—which employs a set of skilled intuitives in a special inquiry mode—three knowledge-bound areas (among others) were explored: earthquake triggering, bipolar (manic) depression, and HIV/AIDS. Abundant new and detailed information was obtained. Later examination (2011) of these intuitive findings revealed that they corresponded very well with results from mainstream research over the intervening years. They showed that intuitive consensus has a significant potential for generating totally new information, ideas, perspectives, and hypotheses in almost any scientific area which is held up by a lack of knowledge. This method and the conditions for conducting future intuitive inquiries successfully, along with the implications for changes to modern science and the current societal paradigm, are described.

Bio: William H. Kautz, Sc.D. M.I.T. '51, conducted basic and applied research in computer science and geophysics at SRI International (Stanford Research Institute) for thirty-five years, eventually as Staff Scientist. He then founded and directed for fifteen years the Center for Applied Intuition, a research, training, and educational organization in San Francisco. He is the author of seven books and fifty journal and magazine articles, and taught at Stanford University, Technical University of Denmark, and other institutions. He currently lives, writes, and teaches in Tucson and Prague.

Effect of Bioelectromagnetic Energy on Human Cells Using Thought Transactions

Jagdish Kohli, San Ramon, CA; Shanmugamurthy Lakshmanan, NJIT, NJ;
& Hans Chaudhry, NJIT, NJ (sponsored by Vijay Gupta)

Three forms of energies are responsible for all manifested life including humans; Active Energy, Gross Energy, and Subtle Energy. The mix of these energies varies in each person and differentiates the health of one person from another (Palep, 2004, p. 54). This three-energy interactive model of a holistic human being was discovered thousands of years ago by many saint- and sage-scientists in India. Palep (2004) has explained the scientific foundation of Ayurveda—an ancient Indian system of holistic health and healing. Tamini (1961) has given a thorough commentary on the ancient science of Yoga including Ayurveda. Our objective is to combine concepts from both ancient and modern sciences and give preliminary results that demonstrate the effect of thought transactions on body cells.

Waechter (2002) reviewed extensive literature and hypothesized that the concept Qi energy in the ancient Chinese system of holistic healing is closely related to bioelectromagnetic (BioEM) energy in Western science. Emoto (2005) showed that directed positive thoughts created well-defined crystalline structures in water and negative thoughts created ill-defined structures. Letchoumanane and Gupta (2012) hypothesized that BioEM energy is projected through thoughts, and demonstrated its effect on doubling okra yield.

Our hypothesis is that directing thoughts towards a particular organ, tissue, or group of cells can also change behavior. Human liver and cancer cells and Rat Neurons are considered for the experiments. These cells are separated into two sets: The first set serves as the control against which results are compared using thought transactions. The cells are diagnosed using optical microscopy and impedance spectroscopy (Prodan, 1999). The first set of results from this experiment in progress will be presented.

There is an urgent need to develop a comprehensive quantitative framework combining ancient sciences with modern science for understanding the dynamics of thoughts and regulation of genes in the cells. The success of this research may one day stop the growth of cancer cells and address other major diseases using non-invasive thought-based treatments.

Suppressing Cancer Cell Growth with Technologically Developed Subtle Energy Patterns

Boris Minev, Yury Kronn, & Mouad Edderkaoui

We are presenting the results of experiments conducted in the UCSD Moore's Cancer Center (hereafter referred to as CCSD) and in the UCLA/VA Pancreatic Research Lab (PR Lab). In both labs, experiments were conducted *in vitro*, comparing the growth of cancer cells in standard growth media and in the same media infused with subtle energy patterns developed using Vital Force Technology™. Both labs were treated twice a day by spraying water infused with the energy pattern "Clean Sweep" to ensure an energetically clean environment.

The ratio of dead cells to live cells was determined utilizing DNA-labeling dyes and Flow Cytometry analysis. Experiments at the PR Lab showed necrosis cell death of pancreatic cancer cells doubled over a two-week period from 9% in the control to 18% in the energy-infused media. When cancer cells were treated with the VFT energy pattern in addition to the anti-cancer drug Gemcitabine, the increase in cell death went from 15% in the control to 36% in the energy-infused media.

Another pilot experiment was conducted in the PR Lab on mice with cancer. The mice were injected with a saline solution infused with the same VFT energetic pattern that was used for the *in vitro* experiment. After three weeks the total tumor volume in the treated mice was 57% less than the total tumor volume of the control group. The number of tumors per mouse was decreased by 32%.

Experiments in the CCSD lab were conducted using the Breast Cancer cell line MDA231 and the Acute Monocytic Leukemia cell line THP-1 growing in standard media RPMI-1640. After 14 days the control had 9 million cancer cells while the cells grown in the subtle energy-infused media had a total of 500,000 cells—18 times less than in the control, and 60% of these cells were dead. Therefore, less than 3% of the cancer cells were alive in the energy-infused media in comparison with the control.

These results suggest an intriguing opportunity to develop a cancer suppression treatment using subtle energy infused media. It can be done either by designing additives to existing and future anti-cancer medicine or as a component in cancer prevention and supplements.

Consciousness and the Quantum Paradigm

C. W. Lear (sponsored by Dean Radin)

Many popular attempts to use quantum mechanics to explain the relationship between consciousness and matter have been misinformed and have abused the theory. Critics cry out against this and have often rejected out of hand any interpretations of quantum theory resulting in consciousness, saying they are too far removed from the rigor of the established scientific community. The elements of the present interpretation are not new, but taken together as an integrated hypothesis, they can offer fresh insight into a difficult debate. To do so requires several fundamental adjustments to core concepts and definitions within both consciousness and contemporary quantum mechanics.

These fundamental adjustments will be defined and discussed using five methodologies.

(1) We first replace the classical wave-particle duality with a wave-event complementarity in which persistent objects are instead seen as transitory events. (2) We then suggest that time reversal of cause and effect allows a measurement to affect the prior state of a system. These two paradigm changes by themselves remove the need for wave-particle duality and collapse of the wave function, often regarded as flaws in the theory. Suitably defined, the event picture also serves as a foundation for conscious interaction, introducing the connection we seek. (3) We then call on wave phase coherence and “indistinguishability of identical particles” as a basis for emergent integration of such events into self-identity. (4) Next, the emergent quantum state of a system depends on how it is measured. Usually such a measurement is defined as occurring by an inert instrument outside the system. But conscious observation may act as a measuring device. Finally, (5) local decreases in system entropy allow highly ordered states to emerge as a result of the conscious observation process.

These five principles will be used to develop an orderly integration of consciousness and material processes. Thus, wave-event complementarity may be represented by a mathematical device in the form of binary exchange operators which allow combinations of two types of events fitting an elementary definition of bipolar conscious interaction in living nature (yin-yang, etc.). Combinations of bipolar events lead to more complex interactions, including a mathematical description of the quantum spin matrices and thence to models of spacetime and momentum space. Causal time reversal allows future influence such as premonitions. Phase coherence and conscious observational causality show how self-identity emerges and results in high level ordering of living systems.

The Secret Life of Gyroscopes

Fran McCabe (sponsored by Bill Bengston)

Most technically savvy people know that the primary behavior of rapidly spinning gyroscopes is to strongly resist any change in the angular orientation of their spin-axes. However, rapidly spinning gyroscopes are perfectly happy and well-behaved with any movement along that axis, or relocation of that axis which remains exactly parallel to its original orientation during such movement or at its new location. Most of those technically savvy people above have had the opportunity to play with a toy gyroscope and have forced the gyroscope's spin-axis to accept an angular change and have thus, directly experienced a phenomenon called "precession," which resists that applied force with a force of its own and of proportional intensity.

Gyroscopes are used primarily in guidance instruments and/or controls in moving vehicles, for example, gyroscopic compasses. In a much more limited range of application, and at a much larger physical size, they also serve as dampers to counter such unwanted oscillations as "roll" of a ship. Ever since the end of WWII and the entrance of the V2 rocket, and then spacecraft, not only has their sophistication and accuracy increased exponentially, but entirely new, equivalent technologies have entered the field, primarily in lock-step with that of other oscillation-based electronic equipment; e.g. Royal Rife's electronically controlled microscope system.

The speaker has devoted a sizable part of his discretionary lifetime conceiving, building, and experimenting with unique gyroscopic systems, that are quite robust, and in some cases, quite powerful. He now views, as indigenous, the relationship between the behavior of flywheel-type gyroscopes and most other physical phenomena. As he sees it, forced deviation from the natural precessional behavior of flywheel-type gyroscopic systems is identical to the motion fundamentals imbedded in other natural, physical phenomena, i.e. electron spin motion in atoms, DNA spirals, weather, cosmological phenomena, and oscillating motion in numerous other examples in physics.

These arc-motion fundamentals exist in the mechanical distillations derived from over 25 physical experiments including: pulsed anti-gravity; spiral motion; motoring by both natural and powered precession; motion reversals; pendulum-tuned motoring; extremely rapid linear motion; a visual-mechanical demonstration of inertia; etc.

The four basic, matter-building-block motions are: orbits, translations of orbits, rotation of the spin-plane, and powered, precession-formed spirals. Interactions caused by collisions with resulting re-encryptions of motion codifications such as electrical transmission; atomic fission and Royal Rife's alternating DNA corrections via oscillation control could really be gyro physics. (The speaker had also intuited that DNA is a gyroscopically induced encoded-double-helix that can be re-encoded by tuned, oscillating-motion intervention.)

Our questions to all are: can gyro momentum be conserved around abrupt 90-degree corners; can gyro wheel spin 'storage' be depleted without losing RPM, and can a self-selected 800:1 torque output be maintained indefinitely with only 1/800 continuous power input (1200 in-lbf natural precession maintained by less than 2 in-lbf DC motor input)?

Hormesis + Toxin = Therapy

John McMichael, Beech Tree Labs, Inc.

Hormesis is often defined as the stimulating effect of a small dose of a substance that is toxic at higher concentrations. Further, the hormetic effect is often seen graphically as a “J” or “U” shaped curve where doses higher or lower than the optimum can fail to induce any response or be toxic.

One such potent toxic substance is thimerosal, an agent long used as a topical disinfectant (Merthiolate) and as an anti-microbial preservative in vaccines. Thimerosal in vaccines has been a focus of heated discussions and lawsuits because of its implication as a possible cause of autism in vaccinated children.

The standard concentration of thimerosal in vaccines was one part in ten thousand (1:10,000), but a therapeutic dose has been found which is considerably lower yet significantly higher than what would be anticipated in a homeopathic remedy. This therapeutic dose is measurable by standard techniques, is stable, and is useful.

For the past two decades we have been working with thimerosal as an anti-viral agent for *in vivo* use in humans and domestic animals. While showing some modest activity against adeno- and polyomaviruses, it is especially effective in combating viruses of the influenza and herpes families.

At first glance it would appear that these two virus classes have little in common. Influenza viruses have SS-RNA for their genetic material while herpes viruses have DS-DNA. Influenza infection is restricted to the respiratory tract while the herpes family can induce disease in a wide variety of tissues.

What these two virus families do share is a replicative cycle that is the target of thimerosal therapy. That vulnerable step is associated with the assembly of virus particles after infection and uncoating in susceptible host cells.

Successful interruption of viral progeny production translates to interruption of infection and often extremely rapid resolution of symptoms and restoration of the healthy state. FDA-authorized clinical trials for evaluating the safety and efficacy of thimerosal for the treatment of influenza and recurrent oral herpes infections have been initiated.

Predicting Seemingly Unpredictable Events Using Pattern Classification of Physiological Data

Julia A. Mossbridge, Northwestern University Department of Psychology

Distinct physiological changes preceding randomly selected and seemingly unpredictable arousing (vs. calm) stimuli arriving 3–10 seconds in the future have been described in peer-reviewed journals using five different physiological measures (skin conductance, heart rate, blood volume, EEG, fMRI) in at least twelve different laboratories. A meta-analysis of experiments examining such anomalous anticipatory activity reports a small but highly significant overall effect (Mossbridge et al., under review). Here we examined the utility of pattern classification in predicting seemingly unpredictable upcoming events based on physiological data preceding those events.

In the first experiment, 20 undergraduates were fitted with 64 EEG electrodes. Participants used their right hand to press the left mouse button as soon as they saw a “1” or heard a low tone, and the right button if they saw a “2” or heard a high tone. All stimuli were randomized. Raw EEG was current source–density transformed and artifacts were removed before analysis. Based on previous work by others revealing predictive alpha patterns preceding visual stimuli, we used as dependent variables the phase of the mean (across-trial) peak alpha (7.5–12 Hz) frequency for each person at each electrode relative to 550 ms preceding the onset of the upcoming stimulus presentation (left vs. right). A random forest pattern classification algorithm was used to classify the dependent variables according to the nature of the upcoming stimulus presentation. To be conservative, the classifier was executed using the actual data versus a randomized version of the same data. Using data from the entire group of participants averaged across trials, the classifier was able to predict the upcoming stimulus class with 76% accuracy ($p < 0.012$; generalization performance). Importantly, two left parietal electrodes (opposite the button-press hand) were most critical for classification.

In the second experiment, in each of 625 trials, author JM tried to guess a future “target” image from four photos. Following this selection, a random number generator randomly selected one of the photos as the target and displayed it. The dependent variables were the mean baselined heart rate (HR) and skin conductance (SC) during each of the ten seconds preceding the presentation of feedback (correct vs. incorrect). The same classification algorithm was used in an attempt to predict, for this one participant, the physiological “anticipatory signature” of the upcoming event, but it was not able to predict the upcoming feedback on a trial-by-trial basis. One possible explanation is that over time the experimenter’s response to the stimuli became less dramatic, consistent with the results of the meta-analysis revealing a decrease in effect size accompanying an increase in the number of trials performed.

Pattern classification of EEG signals suggests that physiological prediction of seemingly unpredictable future events is both possible and informative. Future work will attempt to reduce classification error rate for group data and examine the best paradigms for producing classifiable data on a trial-by-trial basis, and address response shifts over time.

Physics, Synchronicity, and Experimenter Expectation

Sky Nelson (sponsored by Adam Curry)

A new model is proposed where the time evolution operator 'A' of a quantum system is factored into its singular value decomposition. A physical interpretation is given with the following consequences: 1) Any action or measurement by an observer is treated as "imagining the future possible outcomes of the system" and writing the state of the system in an orthonormal basis composed of those outcomes, and 2) the singular values σ_i of 'A' weight the possible outcomes and represent the level of expectation that the experimenter has that the state "i" will occur. As a consequence of this interpretation, the observer's action on and beliefs/expectations of the system determine the set of available outcomes and bias the system toward a particular outcome. This may provide a useful model for understanding psi experiments in the literature. For instance, with regards to experiments by both Radin and Bem, the possible influence of experimenter expectations described above may provide an explanation for both a variance in the data over time, as well as the difficulty for some parties (but not others) to replicate the results.

Justification will be briefly made (in reference to previous papers) for why these results may apply to macroscopic situations as well. It will be suggested that, if the result above is true, effects such as these may have consequences for addressing real world societal problems, such as climate change. In the macroscopic domain, this described effect would appear as the occurrence of 'synchronistic' or meaningful connections within seemingly random events. The effect would bring the observer a greater-than-chance possibility of fulfilling her expectations about everyday events. This would have consequences both positive and negative for human experience. For instance, an individual who believes that challenges such as global climate change are solvable will be more likely to run across coincidences which help her be successful in her attempts to find solutions. Conversely, an individual who thinks the solutions are too difficult or too expensive will find equal appearance of synchronicity to confirm her beliefs. One could reasonably extrapolate that the effect may happen not only at an individual level, but also for collective groups of individuals, bringing about collective meaningful coincidences.

In conclusion, it will be suggested that if the proposition is confirmed to be correct then there is an urgent need for more understanding of this issue not only among intellectual circles but among the general public, for our collective beliefs would potentially have an impact on our collective future.

Another Envelope Experiment with the Bengston Method of Energy Healing: New Answers, More Questions Vernon Nicolas & Bernadette Doran

William Bengston conducted an “envelope experiment” to determine if a recipient’s need catalyzes a healing response in a therapist, even without conscious awareness about the recipient.

Previous research with Bengston demonstrated fMRI brain scans exhibit “on” and “off” states of healing. As he entered an enclosed MRI for measurement, different sealed envelopes were placed in Bengston’s left hand, some empty and others containing pictures and hair samples of animals with cancer. Despite no conscious knowledge of the contents within each envelope on Bengston’s part, the fMRI scans revealed two distinct patterns: the presence of a healing state when Bengston held the animal sample envelopes and the absence of a healing state when he held empty ones.

A similar experiment was conducted to identify an unconscious provocation of a healing response. However, Gas Discharge Visualization (GDV) energy assessments replaced MRI scans to measure the presence of a healing response. GDV scans have been previously used to measure Bengston Method of Energy Healing responses in more than 40 therapists and patients at Equilibrium Energy + Education in Chicago.

Nine individuals trained in the Bengston Method of Energy Healing participated in the experiment. Eight were trained by Bengston during a two-day in-person workshop while one was self-trained using Bengston’s CD program. All were instructed not to consciously “cycle” (the subjective means of initiating a healing energy flow) and were deliberately distracted during the experiment to direct their conscious attention elsewhere. Each was given a sealed envelope holding either a blank index card or a card with the names of three cancer patients currently undergoing Bengston Method treatments. The experimenters and all participants were blind to the contents within each envelope. Only one individual held an envelope at a time to minimize interaction effects. After holding the envelopes for ten minutes, the energetic state of each individual was captured using the GDV technology.

The energy fields of the individuals holding the cancer patient envelopes indicated a strong healing response, as expected. However, the energy fields of the individuals holding blank index card envelopes also indicated a response, at only a slightly lesser extent. While these results corroborate Bengston’s earlier findings, the experiment raises a new set of questions about a “group response” in healing and the nature of resonant bonding.

Bio: Vernon Nicolas is the Research Director and Bernadette Doran is the Director of Equilibrium Energy + Education, a Chicago wellness center dedicated exclusively to research-based energy therapies, classes and training workshops.

Minerals, Genetics, and the Long-term Effects of Cesium 135, 137, Iodine, and Strontium 90

Richard Olree (Invited Speaker)

After the stunning connection was made linking the 64 sequences (or codons) with a specific mineral, the absence or presence of minerals in the human diet has helped to explain both degenerative disease and optimal health. An understanding of how minerals direct the three-dimensional structure of amino acids is explored along with the laws of physics as they relate to minerals. This in turn affects how DNA becomes RNA and how RNA creates three-dimensional proteins.

The relationship of minerals to subatomic particles as it ties in to the constant flow of magnetic energy in the human body will be explored. Understanding the constant flow of energy as it pertains to the circadian rhythms, acupuncture, and gene expression entanglement will be introduced. An understanding of what are the most important minerals to keep the human gene code working will be explained.

Aubrey Keith Brewer (1893–1986) developed a theory of the High pH Cancer Therapy with the mineral cesium and this grew out of his understanding of the physics of the cell membrane. Later studies by Dr. Marilyn Tufte confirmed uptake of cesium by cancer cells. “Alkalize or Die” is a saying in the alternative health industry in reference to cancer treatment and cesium is at the center of the therapy that Dr. Brewer was utilizing in an effort to control the proliferation of cancer cells. The cesium that is used in alternative cancer procedures is referred to as cesium chloride and vibrates or resonates at different frequencies to that of radioactive cesium.

The Fukushima Daiichi nuclear disaster has provided the entire Northern Hemisphere with an abundant amount of cesium in the form of cesium 137 and cesium 135. The consequences of such widespread radioactive particles affect the genetic stability of DNA-based life forms. What are the consequences of the other radioactive minerals such as strontium 90, iodine 131, xenon 131, 133, 135, 137, and 138, tellurium 129, chlorine 38, cesium 134, 136, and 137, arsenic 74, yttrium 91, and lanthanum 140?

The fallout effect on plants is also documented. Fasciation, or cresting, in plants is a rare disorder marked by abnormal growth. It is predominantly caused by a mutation in the meristematic tissue. Plants in the Northern Hemisphere are showing increased signs of fasciation and radioactive stress. As expected, fasciation is more common now in Tokyo, Japan, where it affects dandelions so readily that it is becoming “common”. Increased levels of fasciation are occurring even in our country, but to a lesser degree.

Cesium follows the potassium, sodium, rubidium, and lithium pathways in the human body. Any alteration to cesium can and often does affect these other pathways. Proper mineralization through a change in diet or via supplementation can help prevent or mitigate the fallout effects. Mineralization can help to prevent genetic mutation or fasciation in our biological society and the reasons why will be discussed.

Bio: Dr. Richard N. Olree JR. is a 1981 graduate of Logan College of Chiropractic. He has been in private practice as a Doctor of Chiropractic for over thirty years. Dr. Olree owns and operates a health food store and has his own line of mineral supplementation. He is also the co-author of the book *Minerals for the Genetic Code*. Dr. Olree travels the country lecturing to organic farmers and alternative healing practitioners about minerals, genetics, and remineralization of the human genome.

Immuno-Enhancing Effects of Longitudinal Electromagnetic Fields Generated from a Caduceus Coil

Glen Rein, Quantum Biology Research Lab

Longitudinal vibrations in a variety of resonators (crystals, minerals, meta-materials, thin films, etc.) have been mathematically modeled in an attempt to understand the properties of the electromagnetic (EM) fields they emit. Such longitudinal (or scalar) fields can be experimentally generated by exciting longitudinal vibration modes or by the use of self-cancelling coils. The latter includes the use of toroidal and caduceus coils (which are geometrically related). These studies indicate that longitudinal fields can be considered non-classical, since they do not obey Maxwell's laws. Recently Barrett has reformulated Maxwell's equations [U(1) symmetry-based] to account for the observed anomalous behavior of transverse EM fields under special conditions. The modified equations, based on non-Abelian algebra, characterizes longitudinal EM fields of SU(2) symmetry.

Propagation of longitudinal fields is described in various biological systems (bone, cochlear tissue, etc.), where these fields have been postulated to mediate growth processes. Preliminary studies by Flannigan, Smith, and Ho suggested that biological systems also respond to longitudinal EM fields when applied exogenously. However, relatively little is known about their mechanism of action.

In this presentation, the biological effects were determined by measuring the growth of human lymphocytes in tissue culture. Growth was determined using state-of-the-art biochemical techniques involving the incorporation of (3H)-thymidine (1.0 μ Ci/ml) into replicating DNA. Cell proliferation was determined by measuring the amount of radioactivity in the DNA fraction 12 hours after four 15-minute treatments over a 12-hour treatment period. In some experiments, interleukin-2 (IL-2) (25U/ml), a standard mitogen for lymphocytes, was added to the culture medium immediately prior to the 12-hour EM treatment period. Control cultures received no EM treatments.

Longitudinal fields were generated using a specially designed caduceus coil predicted to emit a combination of transverse (classical) and longitudinal (non-classical) EM fields. The caduceus coil was fed with a complex square wave composed of frequencies expected to stimulate the immune system. Near-field transverse EM measurements were used to characterize the EM fields generated by this caduceus coil. A magnetometer was constructed using a Technics T-1050 high pass coil detector connected to a Spectral Dynamics SD-335 spectrum analyzer and a HP 181TR oscilloscope.

The results indicate that longitudinal EM fields generated from the caduceus coil have a very marked stimulatory effect on the growth of human lymphocytes ($p = 0.001$), much larger than previously reported for classical, transverse EM fields. A similar effect was observed with IL-2, but there was no additivity or synergism when the mitogen was combined with the EM fields. This suggests that these energetic and chemical signals stimulate cell proliferation by similar mechanisms. EM measurements indicated the presence of a weak (1.5 G) transverse EM field with the anomalous appearance of new frequencies not present in the current fed into the caduceus coil. It is presently unclear whether the unusually large stimulatory effect on lymphocyte proliferation is due to an optimal combination of transverse and longitudinal EM fields or a highly effective set of frequencies generated by the fields emitted from the caduceus coil.

The Reeducation of a Hard Scientist

William D. Rowe, SR.

Most of my life I have been a "hard" scientist and engineer. I was educated as a solid state physicist with advance degrees in nuclear physics, statistics, and decision theory. In the latter cases, the design of experiments and reliance on experimental data was paramount. If anything couldn't be measured it didn't exist. In the late 1970s, I began to address probabilistic risk analysis and uncertainty in a decision theory framework. Although much of this was a social science as opposed to hard science, it still had a rigorous intellectual component, including the role of uncertainty and anomalies in both experimental data and life values. This led me to join the SSE in early 1983, particularly after an experience with a well-known healer and psychic counselor.

Through the SSE, I was exposed to research into a variety of anomalies. Although I remained a skeptic, I tried to keep an open mind. The immense data taking and analysis by the PEAR group of intentional telekinesis, using random number generators, particularly caught my intention and interest. During the 1990s, I became involved in activities where groups of people experienced a high "energy" ambience when they seemed to connect with each other. Through PEAR, I was able to obtain and use a Field-Reg random number generator in double blind experiments during recognized periods of these episodes. I published the results in the *Journal of Scientific Exploration* for what I called episodes of Focused Group Energy and since have also used term "zone." Other than the entrainment of two or more people in a group focused on some task, I had little idea of what was being measured except that the experiments gave robust results. Initially, I could not sense these episodes myself and used others who were sensitive to record them. Since then, I have been sensitized to them, and have experienced them in many different circumstances. My experiential horizon had been expanded.

I realized that experiential phenomena were just as "real" as the intellectual and empirically object-oriented universe. For me, a major paradigm shift. Since then, with the help and support of several SSE members, I have entered the experiential realm, I have been exposed a series of increasingly real experiences, and my very belief structure has changed. Through this, I still remain a skeptic since the enabling principle are as much a mystery as ever.

I will in this presentation relate a number of these experiences, what I learned, and where it has taken me.

Theoretical Feasibility of Cold Fusion
According to the BSM–Supergravitation Unified Theory
Stoyan Sarg, York University, Toronto, Canada

Advances in the field of cold fusion or LENR in which the energy release cannot be explained by a chemical process need a deeper understanding of the nuclear reactions and, more particularly, the possibility for modification of the Coulomb barrier. The current theoretical understanding based on high temperature fusion does not envision such a possibility. The treatise *Basic Structures of Matter–Supergravitation Unified Theory* is based on an original model of the physical vacuum containing underlying superfine material structure with node elements held by Supergravitational (SG) forces that are inversely proportional to a cube of the distance. At distances below 1 angstrom, the SG forces appear as strong nuclear forces, while at larger distances they conform to Newtonian gravity.

Amongst the major outcomes are the revealed material structures and shape of the stable elementary particles that build the atomic nuclei. The protons and neutrons are not spherical but have the shape of a twisted and folded torus, respectively. Held by the strong nuclear forces, they form atomic nuclei as fractal three-dimensional structures. Such nuclear models exhibit an excellent match to the pattern of the Periodic Table, showing signatures of valences, the Pauli Exclusion Principle, and angular restrictions of the chemical bonds. The Coulomb barrier for these models does not converge to the small size predicted by the Bohr nuclear model, so it is not so strong. It depends on nuclear orientation and it could be modified by some technical methods. The analysis of some successful cold fusion experiments resulted in practical considerations for modification of the Coulomb barrier. Contact: stoyans@cse.yorku.ca, sarg137@yahoo.com.

Why Not Sasquatch?

Samuel Webb Sentell

Bigfoot/Sasquatch continues to be an area of great interest in our culture while science steadfastly resists examination of the anecdotal data in any comprehensive way. This paper uses the term Sasquatch to represent the purported biological species and Bigfoot to represent the cultural phenomena. Bigfoot phenomena are sometimes hoaxed but hoaxing can be studied within social psychology. Nevertheless, Bigfoot phenomena are not all hoaxes. Bigfoot is also an archetype of the human collective unconscious and can be studied within psychoanalytic, neuroethological and phenomenological disciplines. Phenomenological or psychoanalytic research is historically discounted by zoology which also rejects Sasquatch as a species. Yet, Sasquatch is now considered a “de facto” species by a small but increasing number of scientists. I propose that the problem with Bigfoot/Sasquatch phenomena is lack of orthogonality within one discipline. The blurred boundaries between the social psychology of hoaxing, and the archetypal and biological areas of inquiry leave scholars feeling vulnerable or confused. As such, academics often refuse to peruse the existing anecdotal data and furthermore make irresponsible public statements that are verifiably false in assessing this area of scientific inquiry.

This paper reviews one such example of a false irresponsible public statement made by a scientist reporting on the status of current research on Sasquatch. This scientist stated unequivocally that no scientist to date has ever discovered scat or hair that might be from a Sasquatch. This paper seeks to use this erroneous public statement to reject the implied hypothesis that no scientist to date has ever found scat or hair that might be from a Sasquatch. This writer is one such scientist, who has indeed found anomalous scat and hair as well as other anecdotal evidence supporting the possibility of Sasquatch. This paper presents photographic evidence of possible Sasquatch scat and hair previously submitted for lab examination that has not been found thus far to be another known species. I discuss submission of my hair samples to the newly developing Sasquatch DNA database and implications. Additionally, I provide other additional anecdotal photographic evidence in support of the possibility of Sasquatch and discuss other currently promising related research methodologies.

Sasquatch because of their similarity with humans, pose new and novel problems for research methodology and ethics. Sasquatch research may influence humans to consider new approaches in ecology and ethology. What are our implied human obligations about protection of the niche occupied by this purported species? Can Sasquatch ethically refuse to participate in Sasquatch research? Certainly, science needs to reconsider the traditional appropriateness of harvesting a specimen if they appear to be hominid. Bigfoot/Sasquatch research may ultimately contribute to the shifting of some old paradigms of research, ethics and ways of knowing in the academic world.

The Cognitive Architecture of Placebo

Ken Smith (sponsored by John McMichael)

Scientific interest in the placebo effect is outgrowing viewing it as a nuisance in clinical trials to accepting it as real and worthy of investigation. Changing opinions and research relate to cognitive architecture.

Cognitive architecture includes the manner in which we perceive, how this information is processed, and behavior. Language is considered the mediating element. Architecture both reflects and determines the cognitive systems that govern experimental models to worldviews. An allopathic model, for example, holds the world to be made of physically separated material objects. Research is reductionistic. In turn, a holistic model may view the world as being formed of a web of energy. Research accounts for nonlinear, complex systems. These two approaches to the world are found at the heart of placebo investigations.

A placebo response is the psychological component of treatment delivering a therapeutic effect beyond influences such as natural history and spontaneous remission. It has also been termed a “meaning response.” Expectation and classical conditioning are the major placebo inducers, activating different physiological pathways with similar results, and together produce a greater response than either acting alone.

Changing even one architectural component may change perception and/or behavior. We might then think differently and consciously process in new ways. For example, if psi is included as a viable part of the overall perceptual system, and emotional intelligence is included within processing systems, then the range of perception and meaning is transformed. Worldview evolves.

As worldview has changed, so have placebo-related results. Through more mainstream awareness of the placebo effect, there are increased placebo responses in clinical trials due to increased expectation, or conscious anticipation. In one study, 40 percent of subjects in the control group responded to placebo even though they were told they were receiving placebo. In turn, beliefs may hinder therapy and produce a negative, “nocebo” effect.

Environment also plays a role. A clinician’s office influences expectation and conditioning with subsequent placebo or nocebo responses. Blue pills are generally better than red for tranquilizers except for Italian men since blue is associated with the national soccer team.

These data indicate that cognition, for good and ill, affects well-being. By using this research to develop a cognitive architecture that is modern and inclusive, we may produce sweeping changes to how we look at physiology, engage the world, and change behavior to reflect our innate capacity for the self-regulation of health.

Anomalous Results in a DC Potential Study: Implications for Promoting Health and Well-being in Adult Development

Maria Syldona

Research in fields such as psychology, psychoneuroimmunology, and the neurosciences have established that the mind affects the body, promoting states of health and well-being as well as of illness. In childhood and early adolescence, as the biological or physical development completes itself, the mind simultaneously goes through its own developmental stages, and seems to play a part in overall human developmental stages. After these milestones are reached, in essence, human development is considered to be basically complete, and less research has typically been done at this point of seeming completion. Therefore less is known about human development beyond the mental (supra-mental), and beyond the primarily biological development that occurs in the earlier years of life. As a result, relatively little is known in Western culture about the stages and states of adulthood and their possible effects on health and well-being. Gaining greater scientific understanding of both ordinary and atypical adult developmental processes and their effects on this growing adult population may be one of the greatest and most important challenges of the century.

The British Royal Academy recently called for interdisciplinary collaboration between the sciences and humanities in an effort to understand major paradigmatic challenges. Consideration of cross-cultural traditions and sciences in service of solving these challenges could prove fruitful as well. With respect to adult development and well-being in many other cultures, the 'elders' are those who are in possession of many of the kinds of 'anomalous abilities' studied by, or of interest to, SSE members. Many of them are the 'seers,' the 'healers,' those that know the science of influencing the weather, or possess other non-ordinary talents. These cultures all have an understanding of some supra-mental, psychology cosmology, or psychospiritual aspect inherent in human beings that manifests frequently in adulthood, or advanced adulthood.

Research integrating tenets of Eastern psychospiritual traditions and Western science could also be of value in facing the challenges of promoting health and well-being in adult development. Such integration provided the basis for a study of healing meditation states that produced data of real-time dynamic fluctuations in DC potential measurements. It was hypothesized that bioelectricity, as DC potential current measurements, taken from on and off acupuncture points is both a direct and an indirect measure of prana (chi). Anomalous data from an adult subject who reported spontaneous experiences that met traditional criteria for a Kundalini experience is presented. According to Eastern science traditions, Kundalini processes represent the stage of adulthood, accompanied by the potential for supra-mental or psychospiritual development. The DC potential data taken during this event exhibit an anomalous pattern compared to others obtained in this study, and also appear to corroborate descriptions in Yogic sciences of energy-based phenomena which can take place during Kundalini activation. The results likely represent an electrophysiological signature of Kundalini activity. Since the apparently anomalous data fit the theory which accounts for this data, it serves to confirm the hypothesis.

Bio: Dr. Syldona's interdisciplinary background encompasses science, engineering, psychology, education, and Eastern psychospiritual traditions, at institutions including: Carnegie-Mellon, Stanford, and Brown Universities and SUNY Stonybrook. She is Founder/Director of the Institute for Human Psychospiritual Development in Colorado. Contact: healingbalance@scienceandspirit.org.

Medical Materialism: Exploring the Allopathic Paradigm through Shamanic Practices

Shawn Tassone (sponsored by Larry Dossey)

This talk compares the training of allopathic physicians through calling, medical school, residency, and practice, to that of an indigenous shaman in training. The different stages of training will be compared and presented as a platform to show many similarities and one glaring difference. Indigenous shamanic healers practice healing in the community where they trained where the allopath has no overall sense of community. In order to highlight this comparison, medical students at the University of Arizona in an Integrative Medicine rotation were evaluated after being exposed to Huichol healing traditions in the high desert of Sedona, Arizona.

Seventy-two hours of working with healing and fire ceremonies, smudging, and open dialogue with ancestors, brought students closer to their reasons for entering medical practice. Students claimed the exposure to these indigenous ceremonies and spending increased time with their colleagues in this setting instilled them with a sense of increased community and they felt more energized about the sacred calling to heal. The students also felt more connected to their bodies and their senses of hearing and touch were subjectively elevated. In conclusion, exposure to indigenous methods of healing might bring the allopath back to their calling to enter medicine and allow them increased connection to the community of patients they treat.

The call to heal comes from the familial bonds of the shaman-physician, healing vocation, or from wounds of the past. In any case, it is the spiritual glue that provides physicians with the ability to become healers. The continuation of spirituality in medicine is a critical conduit to healing the physician. Inner healing of the physician is an important aspect of bridging the gap towards healing the community. Shamanic practice is a potential first step in bridging the gap between the wounded healer and the disembodied local and global communities.

Thomas Kuhn, Gaston Bachelard, and Mitsuo Taketani: Three Different Approaches to Scientific Change and Progress

Jean-Christophe Terrillon
Japan Advanced Institute of Science and Technology
1-1 Asahidai, Nomi, Ishikawa, 923-1292 Japan
Contact: terril@jaist.ac.jp

Much research in philosophy of science over the last century has been devoted to the crucial topic of scientific change and progress. The famous American philosopher of science Thomas Kuhn (1922–1996) focused on scientific theories as the crux of scientific endeavor, and argued that persistent anomalies observed in science episodically lead to “paradigm shifts” and to “scientific revolutions,” thus revealing the discontinuity of scientific change—without necessarily implying scientific progress. The study of anomalous phenomena, or more simply expressed, of anomalies in science, which are key elements of Kuhn’s approach, has received increasing attention in the last twenty years, in particular by researchers who question the paradigmatic nature of scientific endeavor.

Other less well-known philosophers of science adopted a different approach to scientific change and progress: in France, Gaston Bachelard (1884–1962) addressed the issue from an epistemological viewpoint, involving concepts instead of theories and paradigms. Bachelard notably invoked scientific progress as coincidental with scientific change—which is not necessarily the case in Kuhn’s work, owing to so-called “Kuhn loss”—with at its heart the notions of epistemological: “obstacle,” “break” or “rupture,” and “reforging.” In Japan, Mitsuo Taketani (1911–2000) characterized scientific change, by analogy with Hegelian dialectics, as a process involving three distinct stages of scientific development: the phenomenal, substantial, and essential stages, with the last stage unifying the previous two stages. The process is cyclic and proceeds in a hierarchical spiral.

To our knowledge, in modern philosophy of science, no in-depth comparative analysis of scientific change and progress has been attempted that contrasts differing approaches, such as that of Kuhn in the United States, with the work of less well-known philosophers of science such as Bachelard in France and Taketani in Japan.

The goal of a new research project which we are initiating at the Japan Advanced Institute of Science and Technology is thus to address the three following research questions (RQ):

RQ1: Can different approaches to scientific change and progress adopted so far in modern philosophy of science be integrated into a more general model, and if so, how?

RQ2: How can anomalies in science be characterized, and how can anomalies, as a key element of scientific change and progress, be incorporated into the more general model considered in RQ1?

RQ3: How can the results of this research project be applied as a useful intellectual tool by researchers and graduate students in their daily research activities, to contribute to increasing their critical approach to and improving the originality of their research (whether individually or in teams), in particular in terms of how to formulate research problems—which are by definition ill-structured—of the research methodology that is used, and of the interpretation of experimental results, while keeping in mind the possibility of the appearance of genuine anomalies?

Upgrading the Immune System through Multiple Composite Frequencies

Mo Wheeler

This proof of concept study involved an upgrade to the immune system using twelve statements of intention to improve antibodies and the way we process energy when the immune system is activated. It was proposed that these changes would be made by a type of healer who can influence multiple composite frequencies at the cellular level. The 110 subjects in the study did not know what would be treated but were simply given a list of five possibilities and asked to write the statement, "I want to be healed," knowing it would relate to only one of the possibilities. The researcher did not know whom she was treating, but asked for the healing on behalf of all of the individuals whose forms were randomly selected and in a sealed envelope.

A second treatment group received the statements in an envelope. They were asked to keep the sealed envelope in their home for three months. It was believed that communication would occur at the cellular level as a result of the subjects' intention to receive healing, the protocol resonating with the healing frequencies, and the passage of at least three months.

The intention statements involved in this study were directed at the cellular level of healing. Three statements related to the immune system getting the wrong signals from the environment and enabled the proteins to make more informed decisions. The body was also asked to make "one size fits all" antibodies that are more adaptable to varying intruders. The stem cells were asked to make new antibodies with more than two branches. Virus protection software was installed and permanence was requested, locking the treatment into cellular memory.

Participants answered a questionnaire at the beginning of the study and again one year later. In order to conceal from the participants which of the five choices would be treated, only five of the eighteen questions were designed to measure a change in the immune system.

Average difference scores were compared to note any change in one year's time. When the two treatments combined were compared to the control group, the difference approached significance ($p = .065$). This is about what was predicted. Looking at the separate group comparisons, the group treated by the researcher was significantly better than the control group that received no treatment ($p < .05$). Although this statistic does not control for the Type I error rate, it is still encouraging, given the small sample and use of a self-report questionnaire.

Does the Planetary Torque on the Oblate Spinning Sun Affect Solar Activity?

Robert M. Wood

Scientists for centuries have noted that there is an 11-year cycle of solar activity and have been largely unsuccessful in either predicting future solar activity or correlating it to the influence of planets. Present consensus among solar physicists is that the influence of the planets on the Sun, though very real, is too small to make a difference, citing the fact that the height of the tide caused by the planets is only a few millimeters and is therefore inconsequential. Furthermore, they have shown that the planetary influence on tides, though small, does not have a repetitive timing consistent with any solar activity. Furthermore, having the planets influence our lives through solar activity seems close to what astrology would claim to perform, and it is a rare astronomer who claims interest in astrology.

Surprisingly, there seem to be no references to or calculations of the torque caused by the planets. Nearly everyone understands that the planets are essentially in the plane of the ecliptic (Earth's plane) and so is the plane of rotation of the Sun. Therefore, any one planet as it goes around the Sun, except when it happens to be in the plane of the solar equator, will produce a torque on the Sun because the Sun is spinning and therefore is an oblate spheroid. Thus, the gravitational pull by a planet is larger on the "bulge" closest to it than it is on the one farther away. This causes a torque on the spinning Sun, which is so dense in the center than it has been suggested that it acts like a solid body. If this were so, there will be precession; and if it is a fluid, a more complex influence on solar motion.

The torque has therefore been computed with reasonable accuracy using Newtonian physics and known equations for elliptical orbits. Since the torque depends on the cube of the distance from the planet (as do tidal terms), the torque can be calculated to a good accuracy by considering only the planets Mercury, Venus, Earth, and Jupiter. All others are less than 1% of these. The geometry is actually quite complex, since the torque from any one planet depends both on the orbit inclination angle to the solar equator and also on the ascending node location with respect to the Sun. Furthermore, torque is a vector and needs to be broken down into x and y components. The torque in the direction of the axis of the sun might even affect the rotation rate.

Both the time history of the torque on the Sun and the frequency spectrum are shown for representative times. Some comparison with solar activity will be shown, and estimate will be made of the significance of the correlation with the gravitational planetary torque.