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Short Communication

Empiric and Theoretical Study on Chee as a Fundamental Biomarker with New and Broad Implications for Physiology, Diagnosis, Therapy, and Whole-body Health

Johnson J H Wang*

Wang Electro-Opto Corporation, Marietta, USA

***Corresponding author:** Johnson J H Wang, Wang Electro-Opto Corporation, Marietta, USA

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Abstract

Using seven oscilloscopes, the Electromagnetic (EM) component of Chee for the 47-century old Traditional Chinese Medicine (TCM) has been tested to be a robust periodic function with a stable frequency of 60 Hz. We speculate that the 60 Hz rhythm in the biomarker Chee is the outcome of the biological evolution process over millions of years, thus can be extended to mammals; this point of view has been confirmed empirically.

Keywords: Traditional Chinese medicine (TCM); biomarker; chee; theory of chee; tests of chee; scientific TCM; field equations; qi; qi-therapy; physiology; diagnosis; medicine

Introduction

Since 1990, healthcare systems in advanced nations have been degrading rapidly, with rising costs, rampant chronic diseases, and aging demographics. In response, governments and private sectors have been seeking solutions from untapped fields, such as the 47-century old Traditional Chinese Medicine (TCM). TCM is based on the conceptual theory of qi (or chi) stating that the vitality of human body relies on adequate qi continuously circulating and permeating throughout the entire body. Today, TCM is included in the national health care systems of major countries in East Asia, used by 60-75% of the population. Elsewhere TCM operations are still in back alleys. TCM's dilemma is rooted in its inability to meet the standards of science and evidence-based modern medicine. In 2018, this author began to develop the scientific theory of Chee and its field equations based on modern sciences. ("Chee" was coined to differentiate from the commonly used "qi.") TCM procedures were distilled and synthesized, one by one, to metamorphose TCM to Scientific TCM (STCM). Theoretical results were presented [1-4] and published [5,6], during 2022-2023. Empirical validation and preliminary characterization of Chee were published recently [7]. This short communication reports the latest findings that are very important and intriguing.

Results

First, the Electromagnetic (EM) component of Chee, χ^{EM}, has been tested to be a robust periodic function with a stable frequency of 60 Hz, as exemplified in (Figure 1), at the left bottom in gold colour "Freq=59.9 Hz". The 0.1 Hz deviation from the 60 Hz rhythm is consistent with the rough feature of the signal in the display. We speculate that the 60 Hz rhythm in the biomarker Chee is the outcome of the biological evolution process over millions of years. Thus, TCM can be extended to mammals. Indeed, test data on a 10-lb cat exhibited amplitude and 60 Hz frequency similar to those of adult human in (Figure 1). Our speculation is also supported from another perspective: Power supply in the late 19th century in the development of AC (Alternating Current) systems from DC (Direct Current). The frequency of 60 Hz was chosen from generation, distribution, efficiency, cost, etc. for the electric power in America and several other countries. While χ^{EM} is found out to be very robust, its amplitude can vary widely from person to person—and also in a person—probed at a point from time to time, driven by the person's emotion, activity, and will, etc. Nevertheless, both amplitude and frequency of χ^{EM} are very uniform throughout the skin surface of any individual human body. Experimental validation of χ^{ME} and χ^{TH}, which are the ME (mechanic) and TH (thermal) component of Chee, respectively, were also successful. Efforts on experimental validation of other components of Chee, ME (mechanic) and TH (thermal), were started in January 2025 with satisfactory results [7].

Figure 1: Oscilloscopic display of the EM component of Chee of a human.

Discussion

Frequencies of neural resonances detected so far are the following bands: delta (1-4 Hz), theta (4-8 Hz), alpha (8-12 Hz), beta (13-30 Hz), low gamma (30-70 Hz), and high gamma (70-150 Hz). In the low gamma band, synchronization of a distributed neuronal assembly by measuring variations of high-frequency activity on the human scalp [8]. In our measurements on Chee, we observed essentially similar characteristics everywhere on the human surface. For the cat, fur was an effective insulating layer; and the test was done only when the probe was grasped by her claw. When expanding the tests to outdoors, which is necessary for larger animals, we encounter baffling failures: No signal can be detected! We believe our digital test equipment were disabled by forces from cyberspace [13,14]. We have built an anechoic chamber with full EM shielding, which is too small for large animals.

Method

The scientific theory of Chee and its field equations were formulated by following the pioneering footsteps of Albert Einstein in his creation of the theory of relativity [9] and Julius Stratton in his consummating macroscopic electromagnetic (EM) theory [10], as well as this author's experience in numerical computations [11] and EM measurements [12]. Tests were conducted using seven oscilloscopes that were commercial products ranging from 1990's to present days. The amplitude of χ^{EM}, a Poynting-power vector in the unit of *watts/m*^{2} is picked up by a high-impedance probe and displayed in *mv/div*. The tests must be in locations free from cyber-attack.

Acknowledgement

None.

Conflict of Interest

None.

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