

Chinese and Soviet Scientists Cooperate to Confirm Existence of the "Jinluo" Line (Meridian Channels)

by LEPING ZHA

(*Department of Physics and Astronomy, University of Pittsburgh /
Pittsburgh NMR Center for Biomedical Research*)

Reflexology (manipulating areas on the feet to affect the rest of the body) was listed as "near bizarre" in a Times cover article on the alternative therapies [Claudia Wallis, "Why New Age Medicine is Catching On", November 4, 1991], compared with the "more credible" treatments like acupuncture, while in fact they are both based on the same ancient Chinese theory of "Jinluo" system, the critical "meridian line network" which links virtually all the human (and animals and plants as well reportedly) parts and passes the "qi" through them to maintain one's health and vitality. According to Huang-Di-Nei-Jin, the most ancient known gigantic Chinese work on traditional medicine, The system consists fourteen "Jin-Mai" lines plus numerous "Lou-Mai" lines that governs the circulation of the "qi" and the "Xue", the two most important elements of life, and adjusts somatic functions from feedback. It is believed by the work the comprehensive control system of the highest level in living body. These channels are also strongly believed by most Chinese parapsychological researchers as well as qigong masters as the pathway of the subtle energies which carries psi information [L. Zha & T. McConnell, "Parapsychology in the People's Republic of China: 1979-1989", *JASPR*, 85, 119-143(1991)].

There are huge number of papers on relations between Jinluo system and psi functions published in China since 1979. Some reported the ESP message's propagating speed along the lines as a typically 15 to 50 centimeters per second among the gifted EFHB (Exceptional Functions of Human Body, the Chinese term for ESP and PK) children and qigong masters [Zhuang Jianxiang, et al. (*Inst. of Space Medico-Engineering, ISME*), "Measurements on Human Electromagnetic Energy Field", *Ziran Zazhi(Chinese Nature Journal)*, 11, 43-51(1988)], a figure well above the control group's (0.1 to 14 centimeters per second). They observed that once the "qi feelings" (usually tingling and bloating) reach their forehead, the desired ESP information appears as an "image" on a special "TV screen" there. There are as many patients receiving the Jinluo-theory based traditional Chinese medicine therapy regularly today as those using Western medicine, in the country where one fourth the earth's population lives (many actually use both simultaneously since it is not unusual for a Western medicine doctor, "Xi-Yi" as called, also prescribes the traditional Chinese "Zhong-Yi" drugs and treatments along with their Aspirin pills, etc.), since they took the existence of the Jinluo system as an well established fact right from their birth.

Wang Weiyi, a famous Chinese physician of Song Dynasty (960-1279) was the first to inscribe the fourteen Jinluo lines onto a copper body model for acupuncture-Jinluological teaching, study and therapy, forming that what we see often today in an acupuncture clinic. However, direct anatomic efforts failed to convincingly identify these lines either *in vivo* or *in vitro*, thus the question whether they really exist became a hot controversy in China and the related studies are active in many state-funded traditional medicine centers, research institutes and universities. Professor Zhu Zongxiang, who leads a group in the Institute of Biophysics of the Chinese Academy of Science (*Academia Sinica*) claimed recently that after nineteen year's scientific studies, they had proven rigorously the Jinluo lines' existence in human, animal and even plant bodies, by at least three independent and distinctive biophysical methods, including pulsed electronic and mechanical-acoustical stimulations-response studies and specific micro-electrode measurements.

According to Prof. Zhu, the Jinluo lines are identified by their low electric impedance, high electric potential, and special acoustic and thermographic conductive characteristics as compared with those of the channel's adjacent areas. Also, as they reported, the most important meridian phenomenon, known as propagating sensation along channel (PSC, the current of numb, distensive feelings propagating during needling at an acupoint), has been extensively studied and verified by classical physiological experiments such as ECG, EEG, EMG (electromyograph), EGG (electrogastrograph), local impedance rheogram, etc. [Zhu Zongxiang, Xu Ruimin, et al., "A Study on the Low Impedance characteristics of the Meridian Lines before and after necessary amputation", *Ziran Zazhi*, 9, 281-287(1986); Zhu Zongxiang, "The Advances and Prospect in Physiological and Biophysical Approaches to the Acupuncture Meridian System", *Ziran Zazhi*, 9, 327-332(1986); Zhu Zongxiang, et al., *Acupuncture Research*, 5, 308- (1980), 7, 169- , 238- , 299- (1982), 8, 73- (1983); etc.]. A detailed experimental channel location map had been produced by 1989 which shows all the fourteen Jinluo lines described in the fore-mentioned ancient works with complete agreement on their positions. The study reports that the typical width of the lines is about one millimeter, that their sizes and locations are stable from one's infancy to adulthood without much change, and that they remain detectable at the same locations in amputated limbs. Applying the same group of methods, Prof. Zhu claimed that similar meridian lines are also found in animals like rat, rabbit, and plants like banana, water melon, Hami melon, and cucumber. These claims have brought wide attentions among Chinese scientists and news media, partially because some of their claims are contradictory to another popular school of general believe in China that the channel system relies on the non-equilibrium physiological dynamic processes of the living body and therefore it would not be detectable *in vitro*.

According to a report of the official Xinhua News Agency (*September 26*,

1991, Beijing, by Zhu Baihua), Chinese and Russian scientists were closely cooperating to further reveal the reality of meridian channels by modern Biophysical means, and major progress has been achieved.

From the source, the research center headed by Professor Zhu signed a collaborate agreement with the Institute of Cytological Biophysics, the former Soviet Academy of Science, to launch a series of morphological and biochemical experiments on Jinluo system. The Russian scientists would investigate the special structure of the channels by optical and electron microscopes, as well as to measure the lines objectively by biochemical (enzymic) methods. The news reports that the scientists from the both sides had made exchanges frequently since May, 1990. A delegation led by Prof. Zhu visited the Soviet site in June, 1991, and Dr. Klamov (name translated from Chinese), director of the Cytological Biophysics Institute's radiology department, is working in the Professor Zhu's lab in Beijing. The report says the Russian researchers have successfully detected acupoints which on the whole agree with the Jinluo map made by Zhu's group.

"Experts" commented in a Xinhua news (*May 23, 1992, by Lang Jing and Chen Jianshan*) that the experimental proof of the Jinluological basics achieved from arming the traditional Chinese medicine system with modern science will "inexorably bring fundamental changes in our understanding on life and human potentials".

Also from other Xinhua reports, Dr. Qian Xuesen, the prominent Chinese rocketeer and former Chairman of the Chinese Science and Technology Association, Dr. Robert Jahn (*PEAR, Princeton University*)'s predecessor of the Goddard Professorship in the Cal. Tech. Jet Propulsion Laboratory who has been providing the crucial supports to China's psi studies from the very beginning, was granted by the party a one-of-a-kind "Outstanding Scientific Contribution Award" which was described as the highest honor ever to a scientist in China. The Chinese government had also started a "learn from Dr. Qian" movement throughout the nation's scientific and technological units. In the grant awarding ceremony attended by the party's top leaders, Dr. Qian mentioned that he will aim to further advance the "Somatic Science" research in China, along with the many other mentioned subjects like the Biological Sciences and the System Engineering.

(Revised on May 25, 1992)