



Yu-Cheng Kuo

Taipei Medical University, Taiwan

Biography

Yu-Cheng Kuo is a Chinese Medical Doctor, Assistant Professor and Editor in Chief for *Journal of Applied Sciences and Research*. He is also the Master of Pharmacology and the PhD holder of Electric Engineering in Biomedical field. He teaches Pharmacology in Taipei Medical University and pulse diagnosis in Chinese Medicine University in Taiwan. Since 2007, he has always been invited to give speech in the international conference for the research of pulse diagnosis and scientific modernization of Chinese Medicine. Meanwhile, he applied these studies to new drug development and invested a biomedical company— Nature Wise which owns the specific HDAC8 inhibitors and can pass the blood brain barrier.

yucheng.kuo@msa.hinet.net



MERIDIAN ON PHARMACOLOGY AND NEW DRUG DEVELOPMENT

Compared to conventional western medicine based on anatomy and chemistry particles, traditional Chinese medicine physicians practice clinic following “Chi”. What is “Chi”? After 25 years study of pulse diagnosis, we defined it as wave or periodic signal. Under this definition, we could recognize the reality of meridians or harmonics between time and frequency domain phenomenon with Fourier transform. Moreover, we could discover the basis of Chinese Medicine based on the mathematics and physics of meridian. With second harmonic generation law and the energy conservation law on meridians, we proved the core mathematic property and philosophy of the Chinese five elements theorem. From the balance of the forces on the artery wall by Newton’s law of mechanics, we derived the radial resonance equation to describe the physical property of the blood pressure wave propagation and transmission in the arteries. Meanwhile, radial resonance theorem explains the physiology of circulation system and builds up the basis of pulse diagnosis on meridians. Based on the results obtained from both animal and clinical experiments, we verified the pulse diagnostic method on meridians recorded in medical literature classic and designed a pulse apparatus according to this meridian principle. Through the pulse diagnostic apparatus, we could map the meridians to harmonics and quantitatively analyze the pathological excess or deficiency of the meridians including the five zang-organs and six fu organs of the patient (pathological matrix). In addition, a series of pharmacology research analyses of acupuncture, Chinese herbs, herbs prescription formula and western drugs on the reinforcing or reducing effect of meridians were being carried out. Even laser acupuncture could be found the effects on harmonics or meridians which described as VAS or resonance therapy in Europe. On the other hand, with matrix operation on harmonics, we were able to simulate the whole make up meridian function of a prescription formula which is composed of several herbs (pharmacological matrix). In clinic, we found that the pathological indicator on meridians-HCV (coefficient of variations of harmonics magnitude) could quantitatively reflect the severity of diseases and evaluate the outcome of patients. From health to death, life struggles between convergence and divergent of negative entropy revealed by the HCV of meridian. Combining the HCV, the pathological and pharmacological inverse matrixes, we developed an algorithm for the AI system to give prescription following the Chinese Medicine Bible: Shang Han Za Bing Lun, such as the white tiger and green dragon formulae. This is also the basis to give acupuncture or laser acupuncture prescription. With Meridian theory, we discovered a series of compounds from *Cnidii Fructus* which a simplest herb formula is described in Shang Han Za Bing Lun. Including BMX, these compounds have been identified as HDAC8 inhibitor. Meanwhile, we developed these compounds guided by the meridian effect on liver and gallbladder which dominate the blood perfusion of brain recorded in Chinese Medicine classic literature. As we expected, BMX passes through BBB (blood brain barrier) in our study. These results provide confidence to us for brain cancer therapy and completed USFDA pre-IND meeting this year. As light, life and medicine owns the duality of particle and wave.