Volume 35, Number 4, 2023 © Mary Ann Liebert, Inc. DOI: 10.1089/acu.2023.0034

Open camera or QR reader and scan code to access this article and other resources online.



# Dr. Lian Zhu: A Founder of Contemporary Acupuncture Medicine

Arthur Yin Fan, MD (China), PhD, LAc,<sup>1,2</sup> and Sarah Faggert Alemi, DAc, LAc<sup>1,3</sup> for the team of the Acupuncture Profession Survey Project, American TCM Association<sup>1</sup>



LIAN ZHU, MD, AN ACTIVE ACUPUNCTURIST, CONTEMPORARY ACUPUNCTURE EDUCATOR, RESEARCHER, AND PROMOTOR. PHOTOGRAPH PROVIDED BY ARTHUR YIN FAN, MD (CHINA), PHD, LAC

<sup>&</sup>lt;sup>1</sup>American TCM Association, Vienna, VA, USA.

<sup>&</sup>lt;sup>2</sup>McLean Center for Complementary and Alternative Medicine, PLC, Vienna, VA, USA.

<sup>&</sup>lt;sup>3</sup>Eastern Roots Wellness, PLC, McLean, VA, USA.

196 FAN AND ALEMI

### **ABSTRACT**

As an inseparable part of Traditional Chinese Medicine (TCM), acupuncture has been used in more than 196 countries or regions and has played an increasingly important role in health care. This article introduces Dr. Lian Zhu, MD, who made great contributions to acupuncture development. Dr. Zhu was a medical doctor, a military physician in her early life, and a high-ranking officer in the health care system of the Chinese government. She became famous as an acupuncturist after learning acupuncture in 1945. She was highly influenced by Zhijun Lu, MD, who learned acupuncture from Zuotian Ren, a TCM doctor in Yan'an, who had cured Chairman Mao Zedong's intractable shoulder pain. Dr. Zhu was one of the 2 earliest acupuncture trainers in the Chinese military health system, helping the Chinese communist military overcome resource shortages during the Chinese Civil War. She was one of China's most-influential acupuncture educators, having taught many acupuncture classes that trained many acupuncturists from 1945 to 1955. She was also an officer and policy maker in the Health Department of the central government, where she established such policy initiatives as training content for TCM doctors' reeducation schools. Dr. Zhu was ones of the earliest acupuncture researchers and administrators with a government-endorsed background. She created the first public acupuncture university in history in 1976 as well as 2 key acupuncture institutes in China and was director of both. She played a crucial role in promoting acupuncture research through TCM and biomedical methods, and was the first scholar in China to publish a thorough book on medical acupuncture using Western-biomedical language, which was highly praised by Chairman Mao. Dr. Zhu's acupuncture theory objectively promoted acceptance of medical acupuncture by the general public, medical doctors, government officials, and international medical societies.

Keywords: acupuncture, Lian Zhu, medical doctor, female acupuncturist, Mao Zedong, research, education

### INTRODUCTION

CUPUNCTURE MEDICINE (including moxibustion, cup-A ping, etc.) is a great creation by Chinese medical doctors 2500 years ago—perhaps much earlier than that. It is an inseparable part of Traditional Chinese Medicine (TCM)\* that has been widely used by China and its neighboring countries. There are hundreds of doctors well-known in the acupuncture profession in history, with more than 400 books on acupuncture.<sup>2,3</sup> However, in 1822, the practice of acupuncture was banned in the Chinese Imperial Medical Academy and Hospital (Tai Yi Yuan) by Emperor Daoguang due to "not being appropriate to serve the monarchs."4 Acupuncture was also struck down by the government during the Republic of China (1911-1949) and had been declining significantly since then, almost becoming a folk medicine. 2-4 Due to the great efforts of some doctors and government leaders of the People's Republic of China (P.R. China) post-1949, acupuncture has flourished again in modern China and has spread further around the world.<sup>1,3</sup>

Post-1949, acupuncture or TCM had spread to 196 countries and regions, with acupuncture being increasingly researched, recognized, and welcomed. According to the statistics of the World Health Organisation (WHO), 113 WHO member states recognize the effects of acupuncture and 29 member states have passed relevant laws and regulations for practicing acupuncture or TCM.<sup>3,5</sup> This trend is still developing, and acupuncture has gradually become a new style of medicine, shared across cultures, which significantly differs from pharmacology- or surgery-oriented medicine. Thus, acupuncture has played an important role in the health care systems of many countries. Licensed acupuncturists' contributions to the U.S. market alone is more than \$3.5 billion USD.<sup>6</sup>

This article introduces Lian Zhu,<sup>†</sup> MD (1909 AD—May 18, 1978 AD), who made important contributions in the early stage of this process.

### DR. ZHU'S CONTRIBUTION

Dr. Zhu was a medical doctor, a military physician in her early life, and a high-ranking officer since the 1940s. However, she was famous as an acupuncturist and researcher

<sup>\*</sup>TCM, broadly, refers to the medicine that originated in ancient China and that has been widely practiced in East-Asian countries, with many academic schools. Narrow TCM mainly refers to the traditional medicine taught by current universities or colleges of Chinese Medicine in China and some other countries; some scholars believe that TCM does not cover Five Elements acupuncture, a classic school of acupuncture developed in the United Kingdom and the United States.

<sup>&</sup>lt;sup>†</sup>In China, the standard name order is surname first and then given name; she was known as Zhu Lian.

DR. LIAN ZHU 197

nationally and internationally since she started to learn acupuncture in 1945. She was invited specially by Chairman Mao Zedong for personal dinners twice due to her contributions in 1955 and 1958.

Dr. Zhu was one of the 2 earliest acupuncture trainers in the Chinese military health system (the other was Zhijun Lu, MD), who helped the Chinese communist military to overcome resource shortages in both physical resources and medications during the Chinese Civil War.<sup>2,3</sup> Dr. Zhu was one of China's most-influential acupuncture educators; she and her early students taught many acupuncture classes that trained many acupuncturists from 1945 to 1955. As an officer and a policy maker in the Health Department of the central government, her New Acupuncture (without emphasizing ancient theory, such as *Jin Luo*, which has been mistranslated as *meridians*) courses became mandated training content in TCM doctor training (reeducation) schools in every Chinese province and major city.

Activities for large-scale transformation of TCM doctors into primary-care Western-style doctors were stopped later by Chairman Mao, in 1955, to respect the TCM profession. Thus, Dr. Zhu's New Acupuncture teaching program in those schools was terminated.<sup>7</sup> Interestingly, 10 years later, during the Cultural Revolution (1966–1976), the acupuncture content in A Barefoot Doctor's Manual: A Guide to Traditional Chinese and Modern Medicine—a training book<sup>8</sup> for 1½ million "barefoot doctors" (usually highschool graduates with 3-6 months of medical training) in China's rural areas—was similar to Dr. Zhu's New Acupuncture teaching program. She created the Nanning 721 Acupuncture University in 1976, the first public acupuncture university in history; 3 classes of students graduated from this university, although it did not continue due to her  $death.^{9-12}$ 

Dr. Zhu was the earliest acupuncture medical researchers and administrators with a government-endorsed background; she created 2 of 5 key acupuncture institutes in China and was the first director of both institutes. Such large-scale acupuncture institutes included acupuncture laboratories for animal studies, literature-research sections, and large-scale acupuncture clinics or hospitals with different specialties for clinical trials and daily practice. These institutes were funded by Chinese central or provincial governments. This kind of acupuncture institute was initiated by Dr. Zhu. She played an important role in promoting acupuncture research through both TCM and biomedical perspectives and methods. She was the first scholar in P.R. China who published a thorough book from the medical acupuncture perspective (i.e., using Western biomedical language), entitled New Acupuncture, 13 which was highly praised by Chairman Mao.

Dr. Zhu's acupuncture theory and book objectively promoted the acceptance of acupuncture and moxibustion by the general public, medical doctors, government officials, and international medical societies. 9–13

## SCHOLAR ALWAYS SOUGHT NEW KNOWLEDGE

Some routine applications and techniques in acupuncturists' current daily practice, commonly thought to have been created by ancient doctors, were invented or developed by Dr. Zhu. 9–12

In her daily life, Dr. Zhu always stuck to her original will, and never missed any opportunity for innovation in acupuncture and moxibustion. It is not known if she was the first doctor to use modern sterilization in acupuncture practice; however, she probably was the first person to specifically emphasize the effect of the clean-needle technique, as she had taught sterilization methods in her acupuncture classes since the 1940s. Her inventions—such as moxibustion with moxa roll and hanging, multiple needle-retention, and bury-needle techniques, etc.—have influenced modern developments of acupuncture and moxibustion profoundly.

For increasing the nervous system's response to acupuncture stimulation, Dr. Zhu developed a slow pushtwisting needle-entering technique. She also emphasized the importance of routinely applying multiple needleretention techniques (i.e. keeping many needles in the soft tissues for 30–60 minutes), which are widely used today; while, in ancient times, some acupuncturists did use a needle-retention technique (usually in rare cases, and only using 1 or 2 needles, for not more than ½ hour). One of the current authors (Fan) believes that, before stainless-steel needles were mass manufactured, acupuncture providers might only have several needles made of gold or silver on hand; hence, a quick and strong needling technique had to be adopted, which has been described in the current Western countries as a dry needling technique. 14-16 For getting even more stimulation to the nervous system, Dr. Zhu developed the bury-needle technique further, a method for which acupuncture needles would be kept under the skin for 24– 72 hours—in some cases, even longer—especially in patients with neurologic disorders.

In the summer of 1951, Dr. Zhu suffered from diarrhea and abdominal pain (acute enteritis), while she was on a work-related trip. She wanted to use moxibustion for selftreatment. As she had not brought moxa with her, she removed a pack of cigarettes from her pocket, took out 1 cigarette, lit it, hung it over ST-36 (Zusanli), and smoked the cigarette. As a result, her symptoms were relieved after a few minutes. The curative effect of cigarette-smoked moxibustion made Dr. Zhu feel there was a lot of potential for using it. She immediately directed her laboratory to carry out research and developed a moxa-roll and named it moxa-roll moxibustion. Moxa-roll moxibustion—which was the origin of the well-known moxa stick moxibustion —is not only convenient but is also easy to adjust the temperature. One of the current authors (Fan) notes that, before Dr. Zhu, the majority of acupuncturists had used loose moxa for 198 FAN AND ALEMI

burning the skin directly or pinched the loose moxa on the handles of the needles and burned the moxa that way.

Dr. Zhu discarded the *Jin Luo* theory and found 19 new acupuncture points. She documented 13 types of acupuncture sensations, or *Zhen Gan*, that detailed the concept of De Qi, the sensation of or reaction to Qi arriving. She did not continually use the old acupuncture manipulation terms *to-nifying* and *draining*; instead, she adopted the terms *exciting technique I, II* and *inhibiting technique I, II*, etc., making the concepts easy for the ordinary people to understand.

## DR. ZHU'S EARLY LIFE AND BACKGROUND

Dr. Zhu was born in Liyang County, in the Jiangsu Province of China. In her early years, she was briefly a primary school teacher in her home town. From 1927 to 1930, she studied Western medicine at the Suzhou Zhihua Obstetrics School in the Jiangsu Province. After graduation, she worked at the Shanghai Pushan Hospital as the director of the obstetrics department and the director of the pharmacy.

In 1931, the Japanese army took advantage of the Mukden Incident (the 918 Shenyang Incident) to invade and occupy China's northeastern 3 provinces (in Manchuria). Dr. Zhu and her husband Xijin Tao moved to Shijiazhuang City, in the Hebei Province in 1932 to carry out secret anti-Japanese activity. She was appointed as an obstetrician and gynecologist at the Zhengtai Railway Bureau Hospital (currently the Shijiazhuang People's Hospital). In 1936, her Lian Zhu Clinic (Zhu Lian Zhen Suo) opened in Shijiazhuang, which became the secret liaison station of the anti-Japanese organizations. During the War of Resistance Against Japanese Aggression, from 1937 to 1945, she served as the Deputy Minister of the Health Department of the 129th Division, of the Eighth Route Army (i.e., the 18th Army Group) of the National Revolutionary Army, and as the head of its Model Hospital. She was also the vice president of China Medical University (in Yan'an).

At the start of 1942, she became the director of the outpatient department of the General Health Department of the 18th Army Group and a consultant to the Nursing Institute of the People's Government of the Shaanxi–Gansu–Ningxia Border Region.

During the Chinese Civil War, from 1945 to 1949, she was the health director of the Shanxi–Hebei–Shandong–Henan Border Region People's Government, the head of the Border Region hospital, the first deputy minister of the Ministry of Health of the North China People's Government (i.e. the predecessor of the Chinese central government), the principal of the Health School of the North China People's Government, and a Women's Committee member of the North China Bureau of the Central Committee of the Communist Party of China.

In 1949, when P.R. China was established, Dr. Zhu was director of the Office of the Central Epidemic Prevention Committee, deputy director of the Department of Maternal

and Child Health of the Central Ministry of Health, director of the Laboratory of Acupuncture and Moxibustion of the Ministry of Health, deputy director of the Institute of Traditional Chinese Medicine (ITCM)<sup>‡</sup> of the Ministry of Health, director of the ITCM Acupuncture Institute; and a member of the Women of the Central Committee of the Communist Party of China. She was also an executive member of the All-China Women's Federation. In 1960, was the deputy mayor of Nanning in Southern China; in 1976 she established The Nanning Institute of Acupuncture and Moxibustion and was the institute's director.

Dr. Zhu was one of the key experts in acupuncture history in China. While working in Yan'an and the Liberated Areas of North China in the late 1940s, she devoted herself to studying, practicing, and researching acupuncture. She conducted massive acupuncture training or education programs during the 1940s to the 1970s, trained many Western-style doctors (especially military doctors and foreign doctors) to become acupuncturists. She is well-known as the author of the aforementioned *New Acupuncture*, <sup>13</sup> which probably was the first thorough acupuncture book to include an explanation of the neurology involved.<sup>2,3,9,10</sup>

# A MEDICAL DOCTOR LEARNED ACUPUNCTURE IN 1945

In the later part of 1943, the War of Resistance Against Japanese Aggression entered a very difficult time—a stalemate stage—with poor living conditions and limited health care resources available in China. Chairman Mao, the major leader of the Chinese Communist Party and the 18th Army Group, developed severe right shoulder pain (now termed a rotator cuff tear). It lasted for a very long time, and Chairman Mao could not raise his right arm, which caused him difficulties with writing and even with eating. As the lead doctor on Mao's medical team, Dr. Lu and his team, as well as other consultant doctors, tried many methods but could not resolve the Chairman's shoulder pain.

At that time, Dr. Lu was a well-known surgeon, president of *the* Bethune International Peace Hospital (BIP; in Yan'an), and the Deputy Minister of Health of the Central Military Commission (the 18th Army Group). Chairman Mao's shoulder pain was cured by Zuotian Ren, a TCM doctor, with several days' treatments of acupuncture plus moxibustion. It should be noted that during that same time, the Chairman also drank herbal tea prescribed by Dingming Li, who was the Vice President of the Shaanxi–Gansu–Ningxia Border Region government. Therefore, Chairman Mao encouraged Dr. Lu to learn acupuncture "when he got the chance."

<sup>&</sup>lt;sup>‡</sup>Later, this institution was named the China Academy of Traditional Chinese Medicine and is now known as the China Academy of Chinese Medical Sciences.

DR. LIAN ZHU 199

In October 1944, Chairman Mao said in his speech at the meeting for the cultural and educational workers in the Border Region:

If new-style doctors<sup>§</sup> do not care about the suffering of the people, [medical schools] do not train doctors for the people, and [such doctors] do not unite with the more than 1000 old-style doctors<sup>§</sup> and old-style veterinarians in the border region, and help them progress, that is actually helping the witch gods, and actually having the heart to watch a large number of people and animals die.<sup>17</sup>

Drs. Lu and Zhu attended that meeting, listened to Mao's speech, and realized the importance of learning and using TCM. Later, at the symposium on Chinese and Western medicine held by the Border Region Government, Dr. Ren (probably the only acupuncturist in Yan'an), expressed his will: He would volunteer to teach and contribute his more than 30 years of acupuncture experience to Western-trained medical doctors in the hope that the Western-trained medical community would elucidate the mechanism of acupuncture further. Several Western-trained medical doctors from the Yan'an region and the field troops from the front lines signed on to be apprenticed to Dr. Ren. Drs. Lu and Zhu signed up immediately, expressing their wish to learn acupuncture with Dr. Ren. <sup>2,3</sup>

However, due to work and the ongoing wars, only Dr. Lu was able to begin studying acupuncture with Dr. Ren at his acupuncture clinic. Dr. Lu would complete operations daily in his BIP hospital and would then ride a horse ~ 20 miles to meet Dr. Ren. In April of 1945, Dr. Zhu became ill and was hospitalized at the BIP hospital, just in time to catch up with Dr. Lu as he began to open a clinic and treat patients with acupuncture in that hospital. Dr. Lu invited Dr. Zhu to observe the effects of acupuncture on several of his patients, and Dr. Zhu was shocked by the effects of the acupuncture treatments. She recalled:

Only then did I know that he (Dr. Lu) had been to Dr. Ren's place for 14 days, learned the (acupuncture) techniques, copied an (acupuncture) handbook by hand,\*\* and drew a few pages of maps of *Jin Luo* and acupoints. At the time (Dr. Lu invited me), I thought it was a good opportunity and readily agreed, but I was still skeptical about the effect of acupuncture. However, after watching the practice of acupuncture, things became more and more complicated, and even made me so stunned that I could not explain it."2.3.9-11††

Not long after Dr. Zhu was discharged from the hospital, she suffered from a pathology known as Cold-Dampness caused by her wading across the Yan River (in Yan'an) several times; this caused her to develop sciatica. Taking medicine and injections, and using hot compresses for a few days had little effect. In desperation, she remembered acupuncture, so she sent her assistant to borrow 2 filiform needles from Dr. Lu<sup>‡‡</sup> and pierced her right buttock at GB-30 (*Huantiao*) by herself, according to the method described by Dr. Lu in a letter. Seemingly miraculously, her sciatica was cured only in 15 minutes. Since that, she developed an interest in learning acupuncture.

Dr. Zhu almost stopped using medications, mainly using acupuncture to treat every disease for soldiers, cadres, and ordinary people in the Yan'an region. At that time, the mechanism of acupuncture and moxibustion was not clear from the biomedical perspective, but acupuncture and moxibustion did save on the cost of using pharmaceuticals and produced good therapeutic effects. Therefore, Dr. Zhu was determined to explore acupuncture and moxibustion in practice, promoting and applying acupuncture to patients in the outpatient department of the 18th Army Group Ministry of Health, which she chaired.

In the winter of 1945, Dr. Zhu returned to the Hebei Province to become director of the Health Bureau of the Shanxi-Hebei-Shandong-Henan Border Regional government and president of the Border Region Hospital. To solve the health care difficulties of the people and troops in the border areas, which were lacking doctors and medications, Dr. Zhu vigorously promoted acupuncture and moxibustion; and established 3 acupuncture classes to train acupuncturists. In September of 1948, the North China People's Government was established and the government was located in Wangzi Village, in Pingshan County. Dr. Zhu's husband Mr. Tao was appointed Secretary General, while Dr. Zhu was the first deputy minister of the Ministry of Health Department and the president of the Harrison International Peace Hospital. She was also a member of the Women's Committee of the North China Bureau.

In February of 1949, with the support of Biwu Dong, the Chairman of the North China People's Government, Dr. Zhu founded the North China Health School in Pingshan County and was the principal. All 4 classes in that school offered acupuncture courses, although the 4 classes were in different majors. More than 200 medical personnel had been trained in acupuncture via those classes.

In May of 1949, Dr. Zhu went to Beijing with the North China People's Government. During this time, she implemented several acupuncture training classes and taught acupuncture to more than 100 medical doctors, including Zhisui Li, MD, §§ who was later assigned to be Chairman

<sup>§</sup>Respectively, Western-style medical doctors and Chinese-style TCM doctors.

<sup>\*\*</sup>Dr. Dan'an Cheng's treatise, *Chinese Acupuncture and Moxibustion Therapeutics*, published in 1931.

<sup>††</sup>These originally were published in an article "Me and Acupuncture" in *People's Daily*, a newspaper, on March 14, 1949.

<sup>\*\*</sup>At that time, acupuncture needles were made from silver coins by a local silversmith.

<sup>§§</sup>According to online information, from 10 years ago, regarding a memoir written by Xuetai Wang, MD; this site has since been deleted.

200 FAN AND ALEMI

Mao's full-time doctor, and Yunpeng Fang, MD, who developed Fang's Scalp Acupuncture. <sup>18</sup> After the establishment of P.R. China, in the early 1950s, due to a severe shortage of Western-trained medical doctors, TCM doctors' training schools were widely established by the Ministry of Health in every province and municipality, to train doctors with Western medical knowledge in acupuncture for at least 1 year. At that time, there were only 38,875 Western-trained doctors, while there were 466,165 Chinese Medicine doctors. Dr. Zhu's New Acupuncture was one of the mandatory courses. <sup>7</sup>

Although appointed as an important officer in the Ministry of Health and having a very heavy workload, Dr. Zhu compiled the *New Acupuncture* book, <sup>13</sup> and the first edition was published in March of 1951. This book was inscribed by De Zhu, the supreme commander of the Chinese army with a preface written by Biwu Dong. This was the first thorough monograph published on acupuncture and moxibustion in P.R. China. The book attracted extensive attention from the national and international medical community. North Korea, Vietnam, and other countries translated and published it in their languages.

In July of 1951, with the approval of the Cultural and Educational Committee of the Central Government Affairs Council, the Laboratory of Acupuncture and Moxibustion of the Ministry of Health (currently the China Academy of Chinese Medical Sciences) was established, and Dr. Zhu was appointed as director. In 1956, the Soviet Union sent 3 medical experts to Beijing to study acupuncture with Dr. Zhu for 3 months.<sup>3</sup>

During 1955–1956, Chairman Mao's wife Jiang Oing received radiation therapy for uterine cancer; this was not well-known. She was severely impacted, both physically and mentally, and was extremely ill without strength to stand and walk. She also had severe insomnia, depression, and anxiety. The assigned doctors, nurses, and service staff tried to avoid her due to her bad temper. Conventional medications and other therapies did not work well, except for acupuncture therapy (including the Taijiquan exercise). Jiang's acupuncture doctor was Xinqing Ye, MD, from the ITCM. Because Jiang had significant improvement after acupuncture treatments, Dr. Ye was awarded Chairman Mao's poem and calligraphy work Loushan Guan (literally, Lou-Mountain Pass, 19 a military fortress in west China) by Chairman Mao himself in 1961. Dr. Ye was most likely the only one who received this kind of award among all doctors. Giving the poem to Dr. Ye suggested that acupuncture played a crucial role in Jiang's recovery. The use of acupuncture on Jiang may have happened because Chairman Mao was inspired by the book written by Dr. Zhu.

The story of Dr. Lian Zhu gives us some insights, we can find that the development of acupuncture is inseparable from the dedication, and development of academics, especially with contemporary methodologies, as well as winning the support of political leaders and creating a suitable academic environment.

### **AUTHORS' CONTRIBUTIONS**

While this article was written by the team of the Acupuncture Profession Survey Project, of the American TCM Association, Dr. Fan initialed the project and drafted it, and Dr. Alemi edited the second version.

### **ACKNOWLEDGMENTS**

The authors express thanks to April Enriquez, LAc, for her English editing of this article.

### **AUTHOR DISCLOSURE STATEMENT**

No competing interests exist.

### **FUNDING INFORMATION**

No funding support from any agency or institution was received for this article.

#### REFERENCES

- National Center for Complementary and Integrative Health, National Institutes of Health. Acupuncture: What You Need to Know. Online document at: www.nccih.nih.gov/health/ acupuncture-what-you-need-to-know Accessed November 17, 2022.
- Wang SY, Lu QW. Contribution of Lu Zhi-jun to the undertakings of acupuncture and moxibustion [in Chinese]. Zhongguo Zhen Jiu. 2006;26(11):809–813.
- 3. Li JW. History of Traditional Chinese Medicine: Acupuncture Has Become a Shared Medicine Around the World for Mankind [in Chinese]. *China Traditional Chinese Medicine Newspaper*, January 2, 2020. Online document at: https://arthuryinfan.wordpress.com/2020/02/21/%e4%b8%ad%e5%8c%bb%e5%8f%b2%e9%92%88%e7%81%b8%e5%b7%b2%e6%88%90%e4%b8%ba%e4%ba%ba%e7%b1%bb%e5%85%b1%e4%ba%ab%e7%9a%84%e5%8c%bb%e5%ad%a6/ Accessed November 30, 2022.
- 4. Lehmann H. Acupuncture in ancient China: How important was it really? *J Integr Med.* 2013;11(1):45–53.
- Wang MH. Press Conference Held by The National Health Commission: Chinese Medicine Has Spread to 196 Countries and Regions [in Chinese]. *People's Daily*, September 24, 2022. Online document at: http://health.people.com.cn/n1/ 2022/0924/c14739-32533101.html Accessed November 30, 2022.
- 6. Fan AY, Wang DD, Ouyang H, et al. Acupuncture price in forty-one metropolitan regions in the United States: An out-of-pocket cost analysis based on OkCopay.com. *J Integr Med*. 2019;17(5):315–320.

DR. LIAN ZHU 201

- Zhang SJ. The debate on the old and the new (medicine): The ups and downs of Zhu Lian's New Acupuncture and moxibustion in the 1950s. Chin Soc Hist Rev. 2017;18:117–125.
- 8. Zhong H. A Barefoot Doctor's Manual: A Guide to Traditional Chinese and Modern Medicine, rev. & enlarged ed. British Columbia, Canada: Cloudburst Press; 1977.
- Wei LF, Yue J, Pan XX. Brief introduction of academic thought of Zhu Lian, an expert in modern acup-moxibustion science [in Chinese]. Zhongguo Zhen Jiu. 2008;28(9):667–671.
- Ma LP, Xue CC. Comrade Zhu Lian, a pioneer and innovator of acupuncture and moxibustion science in new China [in Chinese]. Zhongguo Zhen Jiu. 2007;27(11):845–848.
- Li R. Magic hands in acupuncture, following the fundamental will [in Chinese]. China Traditional Chinese Medicine Newspaper, July 17, 2019:1. Online document at: https:// arthuryinfan.wordpress.com/tag/%E6%9C%B1%E7%90% 8F/ Accessed November 30, 2022.
- Cao QY, Jia CS, Sun GS. Legend of Lian Zhu [in Chinese]. *Extensive Collect Party Hist*. March 15, 2021. Online document at: www.163.com/dy/article/G54J9Q4E05520D3C.html Accessed November 30, 2022.
- Zhu L. New Acupuncture. Bejing: People's Medical Publishing House; 1951.
- Fan AY, Xu J, Li Y-M. Evidence and expert opinions: Dry needling versus acupuncture (I)—The American Alliance for Professional Acupuncture Safety (AAPAS) White Paper 2016. Chin J Integr Med. 2017;23(1):3–9.

- 15. Zhu H, Most H. Dry needling is one type of acupuncture. *Med Acupunct*. 2016;28(4):184–193.
- Fan AY, Xu J, Li YM. Evidence and expert opinions: Dry needling versus acupuncture (II). The American Alliance for Professional Acupuncture Safety (AAPAS) White Paper 2016. Chin J Integr Med. 2017;23(2):83–90.
- Mao ZD. The united front in Cultural Work [in Chinese].
  Selected Works of Mao Zedong, Vol. III. Beijing: People Press; 1991:961.
- 18. Ye M, Fan AY, Alemi SF. Questioning the fundamentals of Jiao's Scalp Acupuncture: Point-positioning based on the hypothesis of the cerebral cortex's functional zone. *Altern Ther Health Med.* 2022;October 28:e-pub ahead of print.
- 19. Baidu. Ye Xinqing [in Chinese]. Online document at: https://baike.baidu.com/item/%E5%8F%B6%E5%BF%83%E6%B8%85#2 Accessed November 30, 2022.

Address correspondence to: Arthur Yin Fan, MD (China), PhD, LAc McLean Center for Complementary and Alternative Medicine, PLC 8214A Old Courthouse Road Vienna, VA 22182 USA

E-mail: ArthurFan@ChineseMedicineDoctor.us