Open Access

OBM Integrative and Complementary Medicine

LIDSEN Publishing Inc.

Editorial

From Recognition to Integration: A Personal Appeal for Strengthening the Position of Laser Acupuncture in International Guidelines, Education and Research – Reflections on the WFAS Education Working Committee Meeting in Wuhan in November 2026

Gerhard Litscher *

Swiss University of Traditional Chinese Medicine, High-Tech Acupuncture and Digital Chinese Medicine, Bad Zurzach, Switzerland; President of the International Society for Medical Laser Applications (ISLA transcontinental; since 2012), German Vice President of the German-Chinese Research Foundation (DCFG) for TCM (since 2014), Vice Chairperson, World Federation of Chinese Medicine Societies, Committee of Card. Rehab. (2023-2028), Honorary President of the *European* Federation of Acupuncture and Moxibustion Societies, Honorary President of the *American* Society for Laser Acupuncture Therapy (ASLAT); Honorary Professor of *China* Beijing International Acupuncture Training Center, China Academy of Chinese Medical Sciences, Honorary Distinguished Professor at the Wang Qi College at Macau University of Science and Technology, China (2026), Vis. Prof. China Medical University, Taichung, Taiwan, Former Head of two Research Units and the TCM Research Center at the Medical University of Graz, Austria, Europe; E-Mail: gerhard.litscher@tcmuni.ch

* **Correspondence:** Gerhard Litscher; E-Mail: gerhard.litscher@tcmuni.ch

Special Issue: Photobiomodulation: Past, Present and Future

OBM Integrative and Complementary Medicine
2026, volume 11, issue 4
doi:10.21926/obm.icm.2604026

Received: November 22, 2026
Accepted: November 22, 2026
Published: November 23, 2026

Abstract

This editorial is a personal appeal for strengthening the international position of laser acupuncture in educational standards, research recommendations and clinical practice. Reflecting on the World Federation of Acupuncture and Moxibustion (WFAS) Education Working Committee Meeting held in Wuhan, China, on 20 November 2026, the article highlights developments in laser acupuncture, its scientific foundations, its relationship with

© 2026 by the author. This is an open access article distributed under the conditions of the Creative Commons by Attribution License, which permits unrestricted use, distribution, and reproduction in any medium or format, provided the original work is correctly cited.

photobiomodulation (PBM) and its increasing international research relevance. The editorial emphasizes the need to move beyond existing international recognition toward systematic integration into acupuncture education, research and practise. The WFAS has an important opportunity to support this development and promote the responsible advancement of laser acupuncture within modern evidence-based medicine.

Keywords
Laser acupuncture; photobiomodulation; WFAS; acupuncture education; international guidelines; acupuncture research; technical standardization; integrative medicine; evidence-based complementary medicine

1. A Personal Appeal for Stronger International Integration

"*My statement is very clear: Let us move beyond the existing recognition of laser acupuncture and further strengthen its position within international acupuncture standards, educational curricula, scientific research and clinical practice!*"

This was the central message of my personal appeal presented as an online member on November 20, 2026, during the Meeting of the Education Working Committee of the World Federation of Acupuncture and Moxibustion Societies (WFAS) in Wuhan, China. I made this statement in the hope that it would stimulate discussion, receive serious consideration by the Committee and, ultimately, lead to concrete steps by WFAS towards stronger institutional and educational integration of laser acupuncture within the international acupuncture community.

Laser acupuncture has already gained recognition and is mentioned in international acupuncture guidelines. However, its presence in important documents should be followed by more comprehensive institutional integration, systematic educational implementation and greater consideration in international research recommendations. The next important step is to ensure that laser acupuncture is not merely acknowledged as an additional technique but is appropriately represented as a component of contemporary acupuncture education and clinical practice.

The meeting brought together representatives of the WFAS leadership, members of the Education Working Committee and Secretariat staff. Alongside colleagues attending in Wuhan, committee members participated online from several countries, including China, the United States, Brazil, Iran, New Zealand, Austria and others. This international participation provided an important opportunity to exchange perspectives on the future of acupuncture education and research. Professor Wang Hua, Chair of the Education Working Committee on the Chinese side, presided over the meeting. Figure 1 documents the international online participation in the conference, including the authors' own participation from Austria and Switzerland, respectively.



Figure 1 International online participation in the hybrid meeting of the Education Working Committee of the World Federation of Acupuncture and Moxibustion Societies (WFAS), held in Wuhan, China, on 20 November 2026. The monitor shows two of the 18 committee members participating online via Zoom, including Gerhard Litscher (Austria/Switzerland) and colleagues from other countries. Together with the members attending in person in Wuhan, the online participants contributed to the international exchange of perspectives on the future development of acupuncture education and research.

The agenda included an introduction to the regulatory requirements governing international social organizations and their affiliated committees, a report on the Committee's activities, deliberations concerning the appointment of an Acting Chair (Professor Liang Fengxia), and discussions about the Committee's future work program. Against this organizational and strategic background, the future direction of international acupuncture education was particularly relevant.

2. Beyond Traditional Acupuncture: The Importance of Technological Innovations

Acupuncture has a history extending over thousands of years and represents an important component of traditional Chinese medicine (TCM). Its international recognition and dissemination have created a growing need for evidence-based education, standardized terminology, reproducible treatment procedures and scientifically sound evaluation methods.

In the author's personal view, digitalization in TCM is very important, but high-tech acupuncture research deserves equally strong attention and integration into international educational programs. Modern acupuncture education should address not only traditional needle techniques but also electroacupuncture, laser acupuncture, biomedical measurement methods, neurophysiological monitoring and emerging digital approaches.

The scientific modernization of acupuncture has been a central theme of the author's research activities for several decades. At the Medical University of Graz in Austria, systematic investigations concerning the physiological effects of different acupuncture stimulation methods were initiated and performed already in the late 1990s. These investigations included manual needle acupuncture, electroacupuncture, laser-based stimulation techniques, modern biomedical engineering and non-invasive physiological measurement techniques.

An important early contribution to this field was the development and investigation of cerebral and peripheral effects of laser-needle stimulation. In a study published in 2003, measurable physiological responses following laser stimulation were examined. Significant changes in peripheral microcirculation and skin temperature were observed in healthy volunteers, contributing to the scientific investigation of laser acupuncture beyond its traditional theoretical foundations [1].

Subsequently, technical parameters and methodological requirements for laser acupuncture were addressed in detail [2]. In particular, the importance of reproducible stimulation conditions and the differentiation between peripheral and central effects were emphasized.

These developments demonstrate that innovation and tradition need not be regarded as opposing concepts. Rather, modern technologies can provide additional opportunities to investigate, quantify and better understand acupuncture-related physiological responses.

The international dissemination of these research perspectives was also reflected in the author's keynote lecture at the WFAS 2025 International Symposium on Acupuncture-Moxibustion in Stockholm, Sweden. The presentation, entitled "Integrating High-Tech Acupuncture and Traditional Chinese Medicine into the Digital Age: Update 2025", addressed the importance of technological innovation in contemporary acupuncture and TCM (Figure 2).

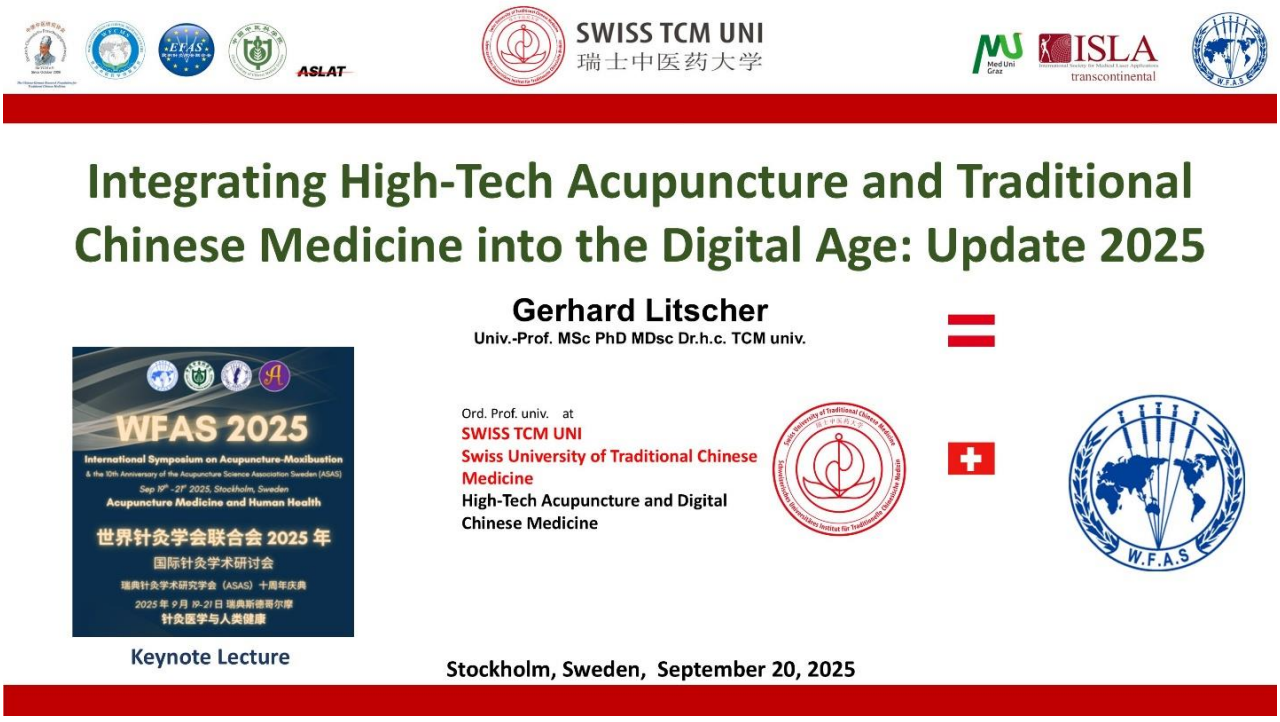


Figure 2 Keynote lecture, "Integrating High-Tech Acupuncture and Traditional Chinese Medicine into the Digital Age: Update 2025", at the WFAS 2025 International Symposium on Acupuncture-Moxibustion in Stockholm, Sweden, on September 20, 2025.

3. Laser Acupuncture: A Scientifically Precise Development with a Long Research History

Laser acupuncture is not a speculative concept or a recently introduced technological trend. Its development dates back to the early 1970s and has attracted increasing international research interest. Unlike conventional needle acupuncture, laser acupuncture uses optical radiation to stimulate acupuncture points without penetrating the skin. This non-invasive approach offers particular opportunities for applications involving patients who are reluctant to receive needles, including children and individuals with needle phobia and/or needle-related anxiety. One important contribution to the scientific investigation of this method has been the development and evaluation of laser-needle technology.

In the author's own research, particular attention has been given to the physiological responses associated with laser stimulation, including cerebral and peripheral effects, microcirculatory changes and the application of modern monitoring techniques. Such investigations are important because they help establish measurable physiological endpoints and provide a basis for developing reproducible research protocols. In 2012, we published a comprehensive analysis of technical parameters for laser acupuncture, including practical recommendations for stimulation procedures and the evaluation of peripheral and central effects [2]. This aspect is particularly important for education. Laser acupuncture cannot be adequately taught simply as applying a light source to an acupuncture point. Its scientific and clinical implementation requires knowledge of optical parameters, including wavelength, output power, irradiation time, energy density, treatment geometry and the characteristics of the stimulation device.

Furthermore, different laser systems and stimulation protocols should not automatically be regarded as equivalent. Appropriate education must therefore address the technical differences between devices and the relationship between stimulation parameters and biological responses.

In 2020, the author published a narrative review on the history of laser acupuncture, summarizing its development and the evolution of the scientific literature [3]. This historical perspective demonstrates that laser acupuncture has developed into an international research field with contributions from different countries, research institutions and medical disciplines.

4. Laser Acupuncture and Photobiomodulation: An Important Scientific Connection

One particularly promising aspect of laser acupuncture is its relationship with photobiomodulation (PBM). PBM describes the biological effects of non-ionizing optical radiation, particularly in the red and near-infrared spectral regions. Research in this field investigates interactions between light and biological tissues, including cellular signaling pathways and possible effects on tissue function and physiological regulation.

Laser acupuncture can be understood as a specific application of optical stimulation at acupuncture-related anatomical locations. This creates an interesting interface between traditional acupuncture concepts and contemporary photobiomedical research. Nevertheless, it is important to distinguish the two fields scientifically. Not every PBM intervention constitutes laser acupuncture, and not every laser acupuncture protocol can be assumed to produce identical photobiomodulatory effects.

In one of my 2024 contributions to *OBM Integrative and Complementary Medicine*, entitled "Mechanisms of Laser Acupuncture – Hypotheses and Evidence", I discussed potential mechanisms, including neurophysiological responses, cellular signaling, immune modulation and other proposed

biological pathways [4]. The underlying mechanisms remain incompletely understood, and further experimental and clinical investigations are required. This uncertainty should not be regarded as a reason to exclude laser acupuncture from scientific education. On the contrary, it provides a strong argument for integrating the topic into structured research-oriented curricula.

5. International Research: The 28-Year Evolution of Laser Acupuncture

The growing international importance of laser acupuncture is also reflected in recent bibliometric research. Particularly noteworthy is the 2025 publication by Liu et al., predominantly affiliated with Chengdu University of TCM, entitled "The 28-year evolution of laser acupuncture: a CiteSpace knowledge graph visualization and analysis" [5].

The authors analyzed 957 laser acupuncture-related publications from 1996 to 2024. Their analysis examined the development of research topics, international collaborations, institutional networks and scientific publication trends [5]. This comprehensive overview provides an important perspective on the international development of the field. It demonstrates the interdisciplinary potential of laser acupuncture and highlights the need to expand research beyond conventional assessments of clinical efficacy.

The contribution from the Chengdu research group is particularly valuable because it documents almost three decades of scientific development. It also illustrates the important role of the author and of Chinese research institutions in the international advancement of laser acupuncture. Together with research activities in Europe, America and other regions, these findings provide a strong argument for strengthening international scientific cooperation and developing common educational standards.

6. Evidence and Integrative Approaches to Pain Management

The scientific discussion has also advanced considerably in clinical applications, particularly in pain management. In 2026, Litscher published, as corresponding author together with the two Professors, Ailioaie the review "Integrative Medical Perspective on Laser Acupuncture for Pain Management" in the journal Sci. This article provides a contemporary perspective on the integration of laser acupuncture and PBM, discussing clinical applications, stimulation parameters and potential biological mechanisms [6]. The review emphasizes the importance of understanding laser acupuncture not merely as a technical alternative to needle stimulation, but as an interdisciplinary approach combining acupuncture principles with modern photobiomedical knowledge. The publication also highlights the importance of standardized treatment protocols and the careful selection of optical parameters. Differences in wavelength, power, energy density, irradiation time, treatment frequency and acupuncture-point selection can substantially influence the comparability of clinical results.

Laser acupuncture also offers interesting methodological possibilities for clinical trials. Its non-invasive nature creates opportunities to investigate treatment conditions in which participants and, under appropriately designed protocols, outcome assessors may be blinded to the active or control intervention. However, the methodological challenges of such studies should not be underestimated. The optical characteristics of sham interventions, possible sensory differences, treatment reproducibility and the adequacy of blinding must all be carefully considered. Well-

designed randomized controlled trials, transparent reporting and independent replication remain essential.

7. Why International Acupuncture Education Must Evolve

The recent discussion in Wuhan highlighted an important strategic opportunity for the WFAS Education Working Committee. International acupuncture education should reflect current scientific and technological development. Educational recommendations should not remain restricted to traditional techniques when additional stimulation methods have been investigated internationally for several decades. The author therefore proposes that laser acupuncture should receive a stronger and more systematic position in future WFAS educational recommendations and international curricula.

The author also addressed the importance of research-based education and technological innovation in his presentation at the WFAS 2026 International Symposium on Acupuncture-Moxibustion, held in Bad Zurzach, Switzerland, on August 13, 2026. The lecture, entitled “High-Tech Acupuncture and Digital Chinese Medicine: Advancing Research-Based Education”, was delivered during Session 1, “Precision Acupuncture and Digital Intelligence Education”. It emphasized the importance of integrating modern technological developments and scientific research into international acupuncture education (Figure 3).



Figure 3 Presentation, “High-Tech Acupuncture and Digital Chinese Medicine: Advancing Research-Based Education”, at the WFAS 2026 International Symposium on Acupuncture-Moxibustion in Bad Zurzach, Switzerland, on August 13, 2026.

At least five areas deserve particular consideration:

a. Scientific foundations: Basic principles of laser physics, optical-tissue interactions and PBM.

b. Technical standards: Wavelength, output power, irradiation time, energy density, dosage, device characteristics, treatment reproducibility, etc.

c. Clinical education: Laser acupuncture-point selection, indications under investigation, treatment protocols, contraindications and patient safety.

d. Research methodology: Appropriate control interventions, blinding strategies, randomized controlled trials, physiological measurements and evidence evaluation.

e. Interdisciplinary development: Integration with biomedical engineering, digital Chinese medicine, neurophysiology and photobiomedicine.

Establishing such educational content would not mean that every laser acupuncture application has already achieved the same level of clinical evidence. Rather, it would ensure that students, practitioners and researchers are equipped to understand the method, critically evaluate the literature and conduct scientifically appropriate investigations.

8. An International Responsibility and an Opportunity for WFAS

The international participation at the Wuhan meeting demonstrated the importance of dialogue between colleagues from different regions and scientific traditions. Research developments in China, regions of China and Europe, together with contributions from investigators in America and other parts of the world, provide a valuable basis for international collaboration.

The WFAS, through its global network and educational structures, is particularly well positioned to support this process. It can facilitate the development of common terminology, educational recommendations, scientific exchange and international cooperation. Stronger integration of laser acupuncture into internationally recognized educational frameworks would represent an important step towards bridging traditional acupuncture knowledge with modern biomedical science.

It would also send a clear message to younger generations of physicians, acupuncturists and biomedical researchers: acupuncture is a developing scientific field open to technological innovation, interdisciplinary research and responsible clinical evaluation.

9. Conclusion: From Recognition to Systematic Integration

My appeal from Europe to the international acupuncture community in Wuhan was straightforward: laser acupuncture has already achieved international recognition, but its position within contemporary acupuncture education, research and clinical practice should be strengthened considerably.

For almost three decades, research activities in Graz and numerous international collaborations have contributed to the scientific investigation of laser-based acupuncture stimulation. The accumulated literature provides a substantial foundation for further education, methodological standardization and clinical research. Nevertheless, important questions remain regarding optimal stimulation parameters, underlying biological mechanisms, clinical indications and long-term therapeutic outcomes. These questions require continued investigation rather than premature conclusions. I am convinced that laser acupuncture can make a valuable contribution to the future development of acupuncture, particularly when integrated with PBM research.

The content of this editorial is supported by previous research on laser acupuncture, which has investigated its clinical efficacy, safety, and therapeutic potential across various indications, suggesting promising results while highlighting the need for further high-quality clinical evidence [7-16].

It is time to move beyond merely mentioning laser acupuncture in international guidelines and scientific publications. Its position should be strengthened through systematic educational implementation, clear technical recommendations, dedicated research programs and appropriate institutional support.

The message from the author to WFAS and the international acupuncture community is therefore clear: Build on the recognition that laser acupuncture has already achieved. Strengthen its institutional position, integrate it systematically into international educational standards, promote high-quality interdisciplinary research and create the conditions for its responsible development in clinical practice.

The author sincerely hopes that this appeal will be heard and that the discussions initiated in Wuhan will contribute to tangible progress in the international development of laser acupuncture.

The future of acupuncture should build on its rich traditional heritage while fully embracing the opportunities offered by modern science and technology.

Author Contributions

The author did all the work for this editorial.

Funding

No financial support.

Competing Interests

The author hereby declares that no conflict of interests exists in connection with the publication of this contribution.

AI-Assisted Technologies Statement

ChatGPT (OpenAI, GPT-6) was used to assist with the translation and linguistic editing of this editorial, including improvements in grammar, readability and English language style. The author critically reviewed, revised and approved the final manuscript and takes full responsibility for its content, scientific accuracy, references and conclusions.

References

1. Litscher G. Cerebral and peripheral effects of laserneedle®-stimulation. Neurol Res. 2003; 25: 722-728.
2. Litscher G, Opitz G. Technical parameters for laser acupuncture to elicit peripheral and central effects: State-of-the-art and short guidelines based on results from the Medical University of Graz, the German academy of acupuncture, and the scientific literature. Evid Based Complement Alternat Med. 2012; 2012: 697096.

3. Litscher G. History of laser acupuncture: A narrative review of scientific literature. Med Acupunct. 2020; 32: 201-208.
4. Litscher G. Mechanisms of laser acupuncture-hypotheses and evidence. OBM Integr Complement Med. 2024; 9: 027.
5. Liu Y, Zhang R, Li Y, Xiong J, Wei Y, Yang Z, et al. The 28-year evolution of laser acupuncture: A CiteSpace knowledge graph visualization and analysis. Lasers Med Sci. 2025; 40: 521.
6. Ailioaie LM, Litscher G, Ailioaie C. Integrative medical perspective on laser acupuncture for pain management. Sci. 2026; 8: 92.
7. Baxter GD, Bleakley C, McDonough S. Clinical effectiveness of laser acupuncture: A systematic review. Innov Acupunct Med. 2008; 1: 65-82.
8. Law D, McDonough S, Bleakley C, Baxter GD, Tumilty S. Laser acupuncture for treating musculoskeletal pain: A systematic review with meta-analysis. Innov Acupunct Med. 2015; 8: 2-16.
9. Yang J, Mallory MJ, Wu Q, Bublitz SE, Do A, Xiong D, et al. The safety of laser acupuncture: A systematic review. Med Acupunct. 2020; 32: 209-217.
10. Chon TY, Mallory MJ, Yang J, Bublitz SE, Do A, Dorsher PT. Laser acupuncture: A concise review. Med Acupunct. 2019; 31: 164-168.
11. Glazov G, Schattner P, Lopez D, Shandley K. Laser acupuncture for chronic non-specific low back pain: A controlled clinical trial. Acupunct Med. 2009; 27: 94-100.
12. Ebneshahidi NS, Heshmatipour M, Moghaddami A, Eghtesadi-Araghi P. The effects of laser acupuncture on chronic tension headache-A randomised controlled trial. Acupunct Med. 2005; 23: 13-18.
13. Varejão CD, Santo FH. Laser acupuncture for relieving nausea and vomiting in pediatric patients undergoing chemotherapy: A single-blind randomized clinical trial. J Pediatr Oncol Nurs. 2019; 36: 44-54.
14. Stadler J, Avian A, Pichler G, Posch K, Urlesberger B, Raith W. Laser acupuncture versus oral glucose administration for pain prevention in term neonates: An observer-blinded non-inferiority randomized controlled clinical trial. Acupunct Med. 2021; 39: 589-595.
15. Kieu TX, Trinh DT, Jing W. Laser acupuncture versus electroacupuncture for nonsevere carpal tunnel syndrome: A randomized controlled trial. Med Acupunct. 2024; 36: 125-136.
16. Palizgir R, Najafi S, Modiri F, Sheykhbahaei N, Hakimiha N, Rahmanpour R. Comparison of therapeutic effects of 940 nm diode laser acupuncture with transcutaneous electrical nerve stimulation in the myofascial pain dysfunction syndrome: A comparative randomized clinical trial. Lasers Med Sci. 2023; 38: 233.