

10 – 11 OCTOBER 2026 TAIWAN

GLOBAL SUMMIT ON

Artificial intelligence in physiotherapy



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Remarks

President of World Physiotherapy

AI is playing an increasingly important role in shaping the future of physiotherapy worldwide. This summit is an important first step in an iterative process to develop shared guiding principles that can support those choosing to explore the responsible and ethical application of AI across practice, education, and research.

Michel Landry, PT, PhD

President, World Physiotherapy

Remarks

President of Taiwan Physical Therapy Association

Distinguished leaders of World Physiotherapy, esteemed speakers, colleagues, and friends from around the world, good morning, and welcome to Taiwan.

On behalf of the Taiwan Physical Therapy Association, it is my great pleasure to welcome you to the World Physiotherapy Global Summit on Artificial Intelligence in Physiotherapy. I would like to express our sincere appreciation to World Physiotherapy for bringing this important global event to Taiwan. We are honored to support this Summit and to welcome colleagues from around the world, especially as we celebrate World Physiotherapy's 75th anniversary.

It is especially meaningful that this global conversation on AI is taking place here in Taiwan. Taiwan has long played an important role in the global technology and AI ecosystem, with particular strengths in semiconductors, computing, and technological innovation. But AI is not only about technology. Its true value lies in how we use it to improve people's lives.

For physiotherapy, AI brings exciting opportunities across practice, education, and research. Yet perhaps the most important question is not simply, "What can AI do?" but rather, "How can we use AI responsibly to make physiotherapy better?" Technology can enhance our knowledge and capabilities, but the human connection, professional judgment, and compassion at the heart of physiotherapy remain essential. This Summit gives us a valuable opportunity to exchange ideas, learn from one another, and shape the future of AI in physiotherapy together.

I would once again like to thank World Physiotherapy, the Steering Group, our distinguished speakers, and everyone who has made this Summit possible. To all our international colleagues, welcome to Taiwan. We hope you enjoy not only the Summit, but also the warmth and hospitality of Taiwan. May these two days inspire new ideas, new collaborations, and a shared vision for the future of our profession. May AI advance our profession, while humanity continues to define it.

Yuan-Hung Chao, PT, PhD

President, Taiwan Physical Therapy Association (TPTA)

Remarks

Vice President of World Physiotherapy and Chair of Steering Committee

Distinguished guests, speakers, experts, and delegates:

On behalf of the steering committee of the Global Summit on AI in Physiotherapy, I would like to extend my warmest welcome to you as we gather to celebrate the 75th anniversary of World Physiotherapy by holding the AI Summit and World Physiotherapy Board Meeting in Taiwan.

The spark for this Summit began with a visionary Taiwanese internship project on AI for physiotherapy, sponsored by the Pathfinder Program of the Ministry of Education in 2024. This momentum was further catalyzed last year during an official visit by global physiotherapy leaders to the Taiwan government. It is my great honor to chair the AI Summit steering committee and to have led the efforts in securing the grant support for this milestone event. We express our profound gratitude to our major funding organisations—the Ministry of Health and Welfare, the Ministry of Foreign Affairs, and the Ministry of Economic Affairs for their generous support, and to our key collaborators, the School and Graduate Institute of Physical Therapy at National Taiwan University for hosting the venue, and the Industrial Technology Research Institute (ITRI) for offering a site visit for the international guests to experience the high technology in AI.

The vision of this AI Summit has turned into reality because of a year-long, highly efficient collaboration. I want to express my sincere gratitude to World Physiotherapy and the Taiwan Physical Therapy Association (TPTA) leadership and the Executive Board, for their unwavering support. Please join me in applauding the 16 international experts for sharing their invaluable insights and helping develop the AI principles, with special thanks to our group leaders. We are also grateful to the six keynote speakers in the forum for sharing their profound perspectives. My thanks also go to the steering committee for their collective dedication across numerous planning meetings.

I look forward to seeing you all engaging and networking at the AI Summit and TPTA activities. I highly encourage you to take some time to explore and enjoy Taiwan's beautiful scenery and rich culture!

Suh-Fang Jeng, PT, ScD

Chair of Steering Committee, AI Summit
Vice President, World Physiotherapy
Professor, National Taiwan University

Remarks

President of Taiwan

總統賀電

華總一信字第 11500083370 號

世界物理治療聯盟理事長 Michel Landry、
社團法人臺灣物理治療學會理事長趙遠宏暨
全體與會人士公鑒：

欣悉訂於 115 年 10 月 10 日、11 日舉行
「物理治療人工智慧全球高峰會」，特電致賀，
並向與會國內外嘉賓表達誠摯問候。期盼藉由
此次盛典，汲取國際前瞻資訊，導入智慧創新
科技，優化精準治療效能，提升照護服務品質，
攜手增進人民健康福祉。敬祝活動圓滿成功，
諸君平安快樂。

賴 清 德



中 華 民 國 1 1 5 年 9 月 7 日

Congratulatory Message from President of Taiwan

Ref 11500083370

President Michel Landry of World Physiotherapy, President Yuan-Hung Chao of Taiwan Physical Therapy Association, Ladies and Gentlemen,

I am delighted to learn that the 'Global Summit on AI in Physiotherapy' is scheduled for October 10 & 11, 2026. I would like to take this chance to express my warmest greetings to all distinguished guests and participants locally and globally. I sincerely hope this great event would allow us to gather advanced global information, introduce smart and innovative technologies, optimise outcomes of precision therapy, improve quality of care, thereby working collaboratively to advance the health and well-being of all. I wish this event a great success, and all of you a most peaceful and enjoyable time together.

Lai Ching-Te

September 7, 2026



Remarks

Minister of the Ministry of Health & Welfare, Taiwan

President of World Physiotherapy Michel Landry, Vice President Suh-Fang Jeng, CEO Sidy Dieye, President of TPTA Yuan-Hung Chao, distinguished leaders in physiotherapy and artificial intelligence, ladies and gentlemen:

On behalf of the Ministry of Health and Welfare, it is my absolute pleasure to welcome you all to Taiwan. For the past fifty years, the Taiwan Physical Therapy Association (TPTA) has been steadfastly dedicated to professional development, educational reform, public health promotion, and international collaboration. It remains one of the Ministry's most trusted allies. As World Physiotherapy celebrates its 75th anniversary this year, we are deeply honored that you have chosen TPTA to co-host the "World Physiotherapy Global Summit on Artificial Intelligence in Physiotherapy" right here in Taipei at such a monumental moment.

I am proud to say that the Ministry of Health and Welfare is the strongest supporter of Taiwan's physical therapy profession. Furthermore, our Office of International Cooperation fully backs TPTA's joint initiatives with World Physiotherapy. The 2018 PEDS project stands as a prime example, where TPTA and World Physiotherapy teamed up to provide leadership and high-risk newborn care training for physiotherapists and physicians across six Southeast Asian nations.

We bring that same unwavering support to today's Summit. I am confident that, under the leadership of World Physiotherapy, the next two days will yield timely, high-impact recommendations for governing physiotherapy in the age of AI.

As we embrace emerging technologies like AI, we must remember that technology should never replace healthcare professionals—it should empower them to deliver better care and make more informed decisions. As we pursue innovation, patient safety, data governance, cybersecurity, ethics, and professional accountability must remain at the very core of our actions. This is precisely why today's summit is so crucial. Through forum and discussions, we will explore both the immense opportunities and the real challenges of integrating AI into physiotherapy.

Finally, I would like to express my sincere appreciation to World Physiotherapy, TPTA, the organizing committee, and all our distinguished experts for making this summit possible. I wish the World Physiotherapy Global Summit on AI in Physiotherapy immense success, and I wish all our international guests a productive, inspiring, and enjoyable stay in Taiwan.

Shih Chung-liang, MD, PhD

Minister of Health and Welfare, Taiwan

Background & Purpose

Artificial intelligence (AI) is rapidly transforming healthcare and is increasingly influencing physiotherapy across clinical practice, education, and research. Advances in generative AI, machine learning, data analytics, and digital technologies offer new opportunities to support clinical decision-making, personalise care, enhance learning and teaching, accelerate research, and improve access to knowledge and services.

At the same time, the growing use of AI raises important questions about ethics, privacy, data governance, transparency, accountability, bias, equity, and professional responsibility. The benefits of AI cannot be considered separately from its potential risks, particularly where AI may influence decisions affecting patients, learners, professionals, and communities. Responsible adoption therefore requires more than technological capability; it requires careful consideration of human judgement, professional values, patient and community needs, and the diverse contexts in which physiotherapy is practised.

As part of World Physiotherapy's 75th anniversary celebrations, the **World Physiotherapy Global Summit on Artificial Intelligence (AI) in Physiotherapy**, jointly convened by World Physiotherapy and the Taiwan Physical Therapy Association in Taipei on 10–11 October, brings together 16 international experts from across the profession. Building on a series of online discussions initiated in July, the Summit provides an opportunity for global experts to exchange perspectives and develop a shared understanding of how AI can be used responsibly and effectively in physiotherapy.

A key outcome of the Summit will be the development of the **AI in Physiotherapy: Taipei Principles for Responsible Application**. The Principles will provide a practical global framework to guide the ethical and responsible use of AI across research, education, and practice. They aim to support innovation that strengthens safe, effective, equitable, and person-centred physiotherapy, while preserving human judgement, professional relationships, professional integrity, and public trust.

Through this collective international dialogue, the Summit seeks to help shape a future in which AI serves as a tool to enhance physiotherapy—not to replace the human expertise, relationships, and values at the heart of the profession.

List of Leaders & Experts

(in alphabetical order)

Gabriel Alain (United States)

Assistant Professor in Health Information Management and Systems and Co-Director of LIFT Lab, School of Health and Rehabilitation Sciences, College of Medicine, The Ohio State University

Chih-Hsiu Cheng (Taiwan)

Professor and Chair, School of Physical Therapy, Chang Gung University, Taiwan
Vice President of TPTA

Ya-Lan Chiu (Taiwan)

Assistant Professor, Department of Physical Therapy, National Cheng Kung University

Ashley James (United Kingdom) - Group Leader

Director of Practice and Development, Chartered Society of Physiotherapy

Haneul Lee (South Korea)

Professor, Department of Physical Therapy, Gachon University

Claudio Tapia Malebrán (Chile)

Associate Professor and Director, Department of Kinesiology
Director, OPENICS - Innovation Ecosystem, Faculty of Medicine, University of Chile

Desmond Mathye (South Africa)

Extraordinary Associate Professor, North-West University
Managing Director, D Mathye Inc.

Caroline (CJ) Morrow (United States)

Managing Director, CJM Strategic Consulting, LLC
Member, APTA Task Force on the Use of Artificial and Augmented Intelligence in Physical Therapy (2026)

Leo Ng (Australia)

Professor, Swinburne University of Technology, Australia

Nicolas Pinsault (France) - Group Leader

Professor, Université Grenoble Alpes
Vice-President, French National Council of Physiotherapists

Michael Rowe (United Kingdom) - Group Leader

Director of Teaching and Learning, University of Lincoln

Mary-Catherine Fraser Saxena (Canada)

PT and Manager of Practice Advisory Service, College of Physiotherapists of Ontario

Ali Soroush (United States)

Assistant Professor, Icahn School of Medicine at Mount Sinai

Joost van Wijchen (Norway)

Programme Leader in Physiotherapy, Western Norway University of Applied Sciences

Kanji Yamada (Japan)

Assistant Professor, Department of Physical Therapy, Faculty of Health Science, Juntendo University

Nai-Jia (Linda) Yao (Taiwan)

Co-founder & Chief Operating Officer, Penpeer

Programmes

Pre-Summit Programme (on-line sessions)

July 6	All- Kick-off meeting
July 20-21	Discussion (I) within each pillar
August 18-28	Discussion (II) within each pillar
September 7	All- Summary from each pillar
September 14	Group leaders- identify common and specific areas

Summit Programme (two-day on-site events)

October 10	
09:00	Opening of Summit*
09:30	Forum: Role & Scope of AI in Physiotherapy and Healthcare*
11:15	Break
11:45	Overview Session
12:30	Lunch Break
13:30	Parallel Discussion I
15:00	Break
15:30 -17:00	Parallel Discussion II

October 11		
09:00	Parallel Discussion III	
10:30	Break	
11:00	Leaders working on principles	Experts free time
	Review principles (one by one)	
12:30	Lunch Break	
13:30	Leaders refine the draft	Experts: Actionable plans
14:30	Draft reviewed by Board	
15:30	Break	
16:00	Closing Ceremony*	

*Open sessions

Forum: Role & Scope of AI in Physiotherapy and Healthcare

List of Forum Speakers

Desmond Mathye (South Africa)

Extraordinary Associate Professor, North-West University
Managing Director, D Mathye Inc.

Nicolas Pinsault (France)

Professor, Université Grenoble Alpes
Vice-President, French National Council of Physiotherapists

Ali Soroush (USA)

Assistant Professor, Windreich Department of Artificial Intelligence and Human Health at the Icahn School of Medicine at Mount Sinai

Paul Chien-Chang Lee (Taiwan)

Director, Department of Information Management, Ministry of Health and Welfare

Jane Yung-Jen Hsu (Taiwan)

Professor & Dean, College of Intelligent Computing, Chang Gung University

Eric Yao-Yu Chuang (Taiwan)

Professor, Department of Electrical Engineering & Graduate Institute of Biomedical Electronics and Bioinformatics, National Taiwan University
Senior Technology Expert / BDL, ITRI Former Director, Biomedical Technology and Device Research Laboratories, Industrial Technology Research Institute, Taiwan

AI and the Future of Physiotherapy Education: Expanding Access, Enhancing Quality, and Building the AI-Ready Physiotherapist

Desmond Mathye

Artificial intelligence (AI) can transform where and how physiotherapy students learn. AI technologies can extend educational experiences beyond traditional lecture rooms and clinical settings by enabling virtual patients, simulated clinical cases, remote supervision, and immediate feedback. These innovations may allow students in rural or under-resourced environments to access learning opportunities previously limited to well-equipped universities and teaching hospitals. Furthermore, AI can enhance clinical reasoning by prompting students and first-contact physiotherapists to consider red flags, alternative diagnoses, and referral options. In this way, AI could serve as an educational equaliser. However, AI may exacerbate existing inequalities. Effective use of AI requires reliable electricity, appropriate devices, affordable data, stable internet connectivity, secure platforms, and digital literacy. For example, in South Africa, periods of load-shedding and load-reduction have disrupted electricity supply, internet connectivity, mobile networks, and access to online teaching. This situation raises a fundamental question: how can students and institutions achieve AI readiness when the necessary infrastructure is inconsistent or unavailable? Students with access to laptops, fibre connections, and backup power are likely to benefit more than those sharing mobile phones in areas with weak signals and frequent power interruptions. Therefore, AI readiness must go beyond software acquisition; it must also ensure equitable access to devices, electricity, connectivity, and training. In addition, students should be equipped to critically evaluate AI outputs, identify potential biases, safeguard patient information, and determine when human judgement is required. AI should enhance, but not replace, educators, clinical experiences, or the professional responsibilities of physiotherapists. This presentation argues that AI can promote equality and equity in physiotherapy education only if we address its benefits and risks concurrently. Without inclusive infrastructure and responsible governance, AI may perpetuate the very inequalities it seeks to resolve.

From Faster Research to Better Evidence: Responsible AI in Physiotherapy

Nicolas Pinsault

Artificial intelligence (AI) is rapidly changing the way physiotherapy research is conducted, from literature screening, data extraction and statistical analysis to prediction, writing and knowledge synthesis. However, greater speed does not automatically produce better evidence. The central challenge is therefore to ensure that AI-supported research remains scientifically valid, clinically meaningful, reproducible, equitable and accountable.

This presentation considers two distinct roles of AI in physiotherapy research: AI as a research tool and AI as an object of research. In both cases, the same requirement applies: evidence must be traceable, testable and accountable. Current findings in rehabilitation are promising, but the evidence base remains immature. Predictive performance alone is insufficient; robust evaluation also requires calibration, external validation, assessment of subgroup errors, clinical utility and downstream impact. The key scientific question is not simply whether an AI model can predict an outcome, but whether using that model improves decisions, care or patient outcomes.

Generative AI creates additional opportunities and risks. It can assist with summarisation, translation, coding and consistency checking, but fabricated references, plausible errors and hidden assumptions make verification against primary sources essential.

Responsible use of AI should therefore begin before model development, by asking whether the problem is worth solving, whether AI is necessary and proportionate, whether the data are fit for purpose, whether findings generalise beyond the development dataset, and whether the approach improves decisions or outcomes. Evaluation should extend across the full AI lifecycle, from problem definition and development to validation, implementation and post-deployment monitoring.

Existing standards such as TRIPOD+AI, PROBAST+AI, DECIDE-AI, SPIRIT-AI and CONSORT-AI already provide a strong methodological foundation. The priority for physiotherapy is to make these standards usable globally. Better evidence (not technological novelty alone) should be the benchmark of responsible innovation. This framework can help guide the development of responsible AI principles for physiotherapy research worldwide, collectively.

Beyond Model Performance: Trust, Judgment, and the Human-AI Interaction

Ali Soroush

Artificial intelligence (AI) is increasingly entering clinical practice, but effective implementation requires more than selecting a model with good performance. The clinical effect of AI emerges when a physiotherapist interprets its output and decides whether to accept, question, or override it. Model performance is therefore necessary but not sufficient for clinical benefit: how AI is integrated into clinical judgment and workflow also matters.

Evidence from clinician-AI studies illustrates this challenge. Clinician-AI teams typically outperform clinicians alone but exceed AI alone in fewer than half of studied conditions. Clinicians may accept incorrect AI suggestions or scrutinise cases less closely when AI raises no concern. This tendency to over-rely on AI can persist despite training, while explanations accompanying AI outputs do not reliably prevent it. Generative AI adds further challenges, including plausible but incorrect outputs and biases related to patient characteristics. Better-performing AI alone therefore does not guarantee better clinical decisions.

This presentation considers how physiotherapists can conceptualise and implement AI as a clinical tool while preserving clinical judgment and accountability. It proposes three principles. First, complementarity: use AI where its capabilities add to those of the clinician, with an understanding of where each performs well and makes errors. Second, calibrated trust: reliance on AI should reflect its demonstrated reliability for the specific task, patient, and clinical context. Third, structured interaction: workflows should make clinician and AI assessments explicit and provide a deliberate process for resolving disagreement.

AI implementation should therefore be evaluated not only by how well the technology performs, but by whether the resulting clinician-AI system improves clinical decision-making. The goal is AI that augments, rather than erodes, physiotherapists' clinical judgment.

Building an AI-Ready Digital Health Infrastructure - The FHIR Box Approach

Paul Chien-Chang Lee

While artificial intelligence holds transformative potential for global healthcare, economy-wide digital infrastructures remain fundamentally unprepared. Currently, legacy Health Information Systems (HIS) are heavily fragmented, trapping critical clinical data in isolated silos. This diverse, unstandardized data landscape prevents the aggregation of high-quality, longitudinal databases required for robust AI machine learning, effectively bottlenecking the development of a modern digital health ecosystem.

Although replacing an economy's fragmented HIS with a unified, premium platform like Epic offers a theoretical solution, the staggering financial and operational costs render this approach unaffordable for most APEC economies.

To bridge this critical gap, Chinese Taipei has developed the "FHIR Box" system. Functioning much like Chrome OS, the FHIR Box acts as an agile middleware layer that achieves seamless interoperability without requiring the costly replacement of legacy HIS. This scalable infrastructure is structured around three core pillars:

1. Taiwan Health Data Space: For secure, standardized data harmonization.
2. Taiwan Health Rule Space: For standardizing clinical protocols and algorithmic logic.
3. Taiwan Health App Space: An open, plug-and-play environment for deploying AI-driven health applications.

By unlocking siloed data through a standardized, low-barrier interoperability layer, the FHIR Box presents a novel, highly adaptable digital health infrastructure. It provides APEC economies with a pragmatic and economically viable blueprint to transition their healthcare systems from fragmented legacies into integrated, AI-ready ecosystems.

Human-Centered AI for Physiotherapy: Opportunities and Challenges

Jane Yung-Jen Hsu

Artificial intelligence is creating new opportunities to make physiotherapy more personalized, measurable, accessible, and continuous. This talk explores human-centered AI applications in movement assessment, wearable and vision-based sensing, personalized exercise, real-time feedback, remote rehabilitation, and intelligent coaching. Emerging multimodal and agentic AI systems may further integrate clinical, movement, and patient-reported data to support adaptive rehabilitation. However, successful adoption requires addressing challenges in clinical validation, privacy, bias, explainability, safety, and workflow integration. Rather than replacing physiotherapists, AI should augment their expertise while preserving patient agency, trust, and human connection—enabling an effective partnership among patients, physiotherapists, and intelligent technologies.

AI-Empowered Physical Therapy: The Future of Smart Medical Devices

Eric Yao-Yu Chuang

Physical therapy is being reshaped by aging populations, rising rehabilitation needs, and workforce constraints that are increasing demand for scalable, continuous care. This presentation examines how artificial intelligence (AI), wearable technologies, smart sensing, and connected medical devices are supporting the shift from facility-based rehabilitation toward more personalized, data-driven, and home-extended models.

Global examples illustrate the use of AI computer vision, wearable stimulation, closed-loop neurorehabilitation, and immersive virtual reality across musculoskeletal and neurological rehabilitation. A four-stage framework—sense, analyze, personalize, and extend—shows how functional and physiological data can support assessment, adaptive intervention, real-time feedback, and continuous follow-up.

Taiwan's strengths in ICT, precision manufacturing, sensing technologies, and diverse care settings provide a strong foundation for smart rehabilitation. Representative applications include exoskeletons, gait and motion assessment, smart wearables, remote monitoring, and digital dysphagia assessment.

Successful adoption, however, requires more than technology alone. Clinical collaboration, validation, industry engagement, and efficient pathways to market are essential. Together, AI-enabled physical therapy and smart medical devices can expand access, enable personalized rehabilitation, and support continuous, measurable progress beyond the clinic.

AI in Physiotherapy: Taipei Principles for Responsible Application

World Physiotherapy seeks to ensure that artificial intelligence strengthens safe, effective, equitable and person-centred physiotherapy while preserving human judgement, relationships, professional community and public trust. A key intended outcome of the summit is the development of “AI in Physiotherapy: Taipei Principles for Responsible Application”, a practical global framework to support the considered and ethical use of AI across three pillars of physiotherapy: research, education, and practice. Both common principles as well as pillar-specific principle will be proposed. The framework supports responsible decisions across diverse health systems and enables beneficial innovation without transferring avoidable risk or inequitable burdens to individuals or communities.

Organising Committees

Management Committee

Michel Landry

Suh-Fang Jeng

Sidy Dieye

Steering Committee

Chair: Suh-Fang Jeng

Programme working group:

Chloe Martin

Ann Nicholson

Shih-Fen Hsiao

Li-Chiou Chen

Finance & logistics working group:

Ian Anderson

Natasha Joyner

Kuan-Yin Lin

Hui-Ting Shih

Communication working group:

Mia Lockner

Chloe Martin

Kuan-Yin Lin