

BIO Asia Taiwan 2025: Advancing Biotech Innovation and Global Collaboration

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Taiwan's bioscience industry continues to innovate, accelerating global access to therapies, while balancing stewardship with growth potential



The **BIO Asia–Taiwan 2025** conference, titled "**Next Wave of Biotech Opportunities**," opened with the participation of over 600 international delegates from 50 countries, including the United States, Japan, and South Korea, as well as more than 2,300 participants. Co-hosted by BIO and Taiwan Bio Industry Organization (Taiwan BIO), BIO Asia–Taiwan is a leading platform for biotech innovation and collaboration. The event highlights the rapid growth of the global life sciences sector, emphasizing the critical role of cross-border partnerships in advancing supply chains and early-stage R&D. Taiwan's position at the center of this transformation exemplifies the integration of international cooperation and industry innovation.

The BIO Asia–Taiwan 2025 convention was inaugurated on **July 23 at Taipei Nangang Exhibition Center, TaiNEX 1 and 2**. The forums brought together experts from academia, industry, and investment in an energized and purposeful gathering to explore the science, strategies, and collaborations propelling the region's biotechnology advancements. As Taiwan advances global biotech innovation and fosters international partnerships, it plays a crucial role in advancing global biotech innovation.

The BIO Asia–Taiwan 2025 Conference has achieved record-breaking scale, featuring 40 sessions with over 180 speakers discussing global innovation trends and challenges. This year's BIO Asia-Taiwan event was larger than ever with three major forums including Innovation Forums, Investment Summits, and Regional Collaboration Forums. During these forums, participants exchanged ideas to keep abreast of the latest developments and to find inspiration to turn today's dynamic challenges into innovative opportunities.

Johnsee Lee, Chairman of BIO Asia–Taiwan; Liu Lee-Cheng, Chairman of Taiwan Bio Industry Association (Taiwan BIO); and Kelly Seagraves, Vice President of National Security and International Affairs at Biotechnology Innovation Organization (BIO), participated in the opening ceremony).

The conference emphasized innovation, investment, and regional cooperation, driving progress in cross-border regulatory harmonization, multinational clinical trials, and global investment. It highlighted Taiwan's role as a hub for biotech innovation and collaboration, with potential business opportunities estimated at billions of dollars.

At the forum, a new "**Asia Pacific Regional Biotech Cooperation Working Group**" was officially launched, which is intended to serve as an ongoing platform for dialogue and encourage regional exchange and cooperation in key areas like regulations, investment, and startup development.

The 2025 edition featured two new highlights: the **National Biotechnology Research Park Demo Day** and the **TMU×BE×SCHS Demo Day**. Spanning nine days over three weeks, this year's gathering was the largest in its history.

Enthralling sessions: BIO Asia-Taiwan 2025:

Over the first three days of BIO Asia–Taiwan, country-specific forums provided a platform for in-depth discussions on regional collaboration in the biotech and healthcare sectors. These forums culminated in the launch of the Asia Pacific Regional Biotech Cooperation Working Group, a dedicated platform to foster dialogue and cooperation on critical areas such as regulations, investment, startup incubation, and clinical trials.

The event featured three major forums—the **Innovation Forum**, **Investment Summit**, and **Regional Collaboration Forum**, as well as four key activities: **Exhibition**, **One-to-One Partnering**, **Company Presentations**, and **Seminars**.

Innovation Forums, Investment Summits, and Regional Collaboration Forums:

Taiwan's biotech industry continues to innovate, and it also strives to make therapies accessible to patients worldwide as quickly as possible. Biotechnology represents both an opportunity and a responsibility.

The conference forums explored leading biotech trends and cutting-edge technologies, featuring major international speakers. Highlights included George Hara, UN ambassador, impact investor, and recipient of the 2024 BIO Asia Award, who discussed how biotech drives economic growth and social value, and David Flores, President of BioCentury, who analyzed market strategies and investment trends in biotech.

During a panel discussion led by Johnsee Lee, Chairman of BIO Asia–Taiwan, and Chen Liang-Gee, Chairman of the Taiwan Digital Health Industry Development Association, experts highlighted Taiwan's strong potential in the digital health sector. Taiwan boasts robust data infrastructure, advanced technical capabilities, and a significant concentration of global AI talent, as noted by NVIDIA founder Jensen Huang. Government policies and proactive initiatives make the country well-positioned to translate its AI resources into practical applications. However, challenges remain, as experts stressed that the digital health ecosystem requires the simultaneous advancement of technology maturity, funding, clinical validation, and viable business models to fully realize its potential as a global hub for smart health solutions.

The Innovation Forum highlighted the transformative role of artificial intelligence in advancing translational medicine. Delegates were inspired by case studies demonstrating how deep learning accelerates biomarker discovery and enhances patient stratification for complex diseases. A standout moment came from Professor Min-Hao Lee of Taipei Medical University, who noted that AI has evolved from a theoretical concept into a practical clinical partner, delivering tangible results in oncology, neurology, and rare disease research.

Amid increasing economic volatility, outsourcing strategies were a key focus in discussions between CROs and biotech CEOs. The conversation emphasized a shift from cost-driven approaches to value-driven partnerships that prioritize global quality standards. Jason Lin, Head of Strategy at BioBridge Asia, stated that the pandemic has shifted priorities, emphasizing that it is no longer about who offers the lowest cost, but rather who can provide reliability, compliance, and speed.

The **Innovation Forum** held during BIO Asia-Taiwan 2025 featured presentations on advances in *Antibody-Drug Conjugate (ADC)* therapies. A focus on Digital Health and Antibody Drug Development was the main theme of the conference, while key topics such as smart healthcare, precision health, digital health, and Alzheimer's Disease were addressed in Special Sessions. International and domestic speakers shared their insights at the conference.

Teiji Wada, Head of Research Platform at Daiichi Sankyo, shared insights into the development of next-generation ADC drugs. Yu-Hsuan Lo, a researcher at the Development Center for Biotechnology (DCB), introduced DCB's pH-dependent ADC platform designed to enhance specificity and therapeutic efficacy. Luke Bi, Head of China BioA and APAC LCMS at Labcorp, discussed challenges in ADC bioanalytical method development and regulatory considerations. The session underscored the growing momentum of ADC therapies and their evolving technological and regulatory landscapes.

Dr. Tam C. Nguyen, Deputy Director of Research at St. Vincent's Hospital Melbourne, **Australia**, emphasized that Australia offers a robust clinical trial ecosystem, attracting global biotech companies to conduct Phase I clinical studies. However, he noted that only through cross-border regulatory alignment can the full benefits of these trials be realized on a global scale.

Ed Jager, Director of Trade and Investment at the Canadian Trade Office in Taipei, shared **Canada's** experience leveraging AI to accelerate drug development and precision diagnostics. He affirmed Canada's commitment to deepening partnerships with Asia in these key areas.

Wan Yee Goh, Senior Vice President of Biopharmaceuticals at the **Singapore** Economic Development Board, noted that Singapore has established a region-leading mRNA biotechnology manufacturing platform, positioning itself as a key hub for advanced biomanufacturing in Asia.

A panel discussion was moderated by Tsai-Kun Li, VP of DCB, with guests Teiji Wada, Yu-Hsuan Lo, Luke Bi, and Yi-Huang Hsieh, VP of R&D at Taiwan Advanced Chemicals (TAC). The discussion centered on strategies to enhance the efficacy and delivery efficiency of ADC therapies, and approaches to broaden the indications and expand the patient population for ADC treatments.

The Innovation Forum explored the regulation and application of AI-driven medical devices at the intersection of smart healthcare and artificial intelligence. During the session, Kang-Yuan Lee, VP and Professor of Internal Medicine at Taipei Medical University (TMU), presented insights from leading experts. A discussion of genomics and generative AI was led by Ray Jade Chen, Chairman of TMU. Mai-Szu Wu, President of TMU, introduced TAIP-X, an AI platform developed by TMU, highlighting its clinical applications in smart hospitals, including automated documentation, smart whiteboards, and voice-activated systems. A tech-driven perspective on AI in healthcare was provided by Wei-Bin Lee, Executive Director of Hon Hai Research Institute (Foxconn). Finally, Chia-Hua Maggie Ho, COO of Amarex Taiwan, discussed the FDA's evolving regulatory pathways for AI medical devices, including adaptive algorithms, predetermined change control plans, and cross-center coordination. The session underscored Taiwan's proactive role in advancing innovation while ensuring regulatory balance and clinical integration.

Sessions and Pannel Discussions:

The symposia brought together scientists, clinicians, and regulatory professionals to explore cutting-edge advancements in biotech and drug development. A full-day session on regulatory T-cell (Treg) research highlighted their role in treating autoimmune diseases and enabling transplant tolerance, with discussions on next-generation CAR-Treg engineering. Another session, hosted by Promega, focused on biologics innovation through functional bioassays, emphasizing precision in validating complex therapies like bispecific antibodies and checkpoint inhibitors. Additionally, experts debated the integration of emerging tools such as organ-on-chip systems and AI-guided molecule design into existing drug development workflows.

A panel of industry leaders and experts discussed the future of precision health at Taiwan's Innovation Forum, showcasing cutting-edge advancements. A presentation by Kyle Kai-How Farh, VP of Artificial Intelligence and Honorary Scientist at Illumina, showed how advanced analytical tools can revolutionize drug discovery and development. AstraZeneca's Del Angel, Head of Rare Diseases and Executive Director for Genomics Research, demonstrated how AI-driven multi-omics data can be integrated with large-scale human biobanks to accelerate the development of new therapies.

Introducing genetic analysis tools for cancer research, medicine, microbiome studies, and disease prevention, Yau-Yu Chuang discussed the importance of multi-omics big data and artificial intelligence in driving precision health. The Taiwan-Los Angeles collaboration was an excellent illustration of how cross-border partnerships can drive AI-driven health innovation, according to Dave Whelan, Chief Business Officer of Big4Bio.

A panel discussion at the Innovation Forum showed that Taiwan is positioning itself as a global leader in precision health innovations. Eric Y. Chuang moderated the session, which included experts Guillermo Del Angel, Kyle Kai-How Farh, Dave Whelan, and Wayne Huey-Herng Sheu.

The panel delved into the applications of whole-genome sequencing and the development of precision medicine, examining opportunities from both global and local perspectives. Besides addressing challenges in leveraging genetic health data in Taiwan, Sheu shared insights on how precision medicine is transforming chronic disease management, particularly in diabetes care.

During the session, genomics, artificial intelligence, and international collaboration highlighted the potential for precision health to revolutionize healthcare.

The **Investment Summit** drew a packed audience of investors, founders, and medtech experts, with a focus on wearable diagnostics, remote monitoring devices, and AI-enabled imaging platforms. Venture capital leaders highlighted a shift from hype-driven valuations to those grounded in clinical data and regulatory maturity. Emerging startups from across APAC presented innovative solutions, including AI-powered imaging tools, non-invasive glucose monitors, and biosensors with real-time data capabilities, all designed to address the region's unique health challenges. The atmosphere was optimistic yet marked by a disciplined focus on operational and commercial strategy.

Industry leaders at BIO Asia-Taiwan 2025 shared innovative approaches to advancing healthcare through technology. Paru Deshpande of IMEC highlighted how semiconductor technology is driving digital health applications, while Yommei Yanagiba of GE Healthcare China discussed integrating medical imaging with AI to enhance clinical workflows. Tony Lee of Google explained the company's use of cloud computing and AI to improve diagnostics and healthcare models.

Taiwan embraces digital health and smart medical technologies to address its rapidly aging population, as outlined at BIO Asia-Taiwan 2025.

The BIO Asia–Taiwan Investment Summit showcased leading Taiwanese biotech companies alongside international biotech firms introduced by venture capital firms such as Illumina Ventures, Syncona, VMS Group, and Vivo Capital. Senior executives from global pharmaceutical companies also participated, engaging in discussions on global investment trends. Notable attendees included Dr. Jenny Hsiung from AbbVie, Dr. Michael Hsieh from Gilead Sciences, and Dr. Pei Shih from Novo Nordisk.

Audrey Tseng, Executive Director of Taiwan BIO, highlighted Taiwan's resilience in biotech funding, with 15 companies going public in 2024, raising NT\$14.55 billion (US\$68 million), and five more IPOs in the first half of 2025. He noted that, for biotech companies seeking capital or institutional investors seeking funding or institutional investors hunting for opportunities, Taiwan has become an important stop.

Taiwan's National Health Insurance Administration (NHIA) is harnessing private sector innovation and AI-driven big health data to predict diabetes risks, advancing its vision of a people-centered, sustainable healthcare system. NHIA Director-General Shih Chung-Liang emphasized the importance of innovative solutions given chronic diseases account for 40 % of healthcare expenditures. To tackle these challenges, the NHIA is advancing four key initiatives: the NHI MediCloud System, Personal Health Passport System, Family Physician Integrated Care Platform, and the Cancer Precision Medicine and Biobank Integration Program. To ensure a more sustainable healthcare system for Taiwan's super-aged society, these programs integrate health insurance data, public health data, and self-health management data.

Taiwan's Ministry of Health and Welfare, ITRI (Industrial Technology Research Institute), Taipei Medical University, Acer Group, imec (Belgium's microelectronics non-profit research center), GE Healthcare, AstraZeneca, and Eisai were represented. Acer Group's Co-founder and Honorary Chairman, Stan Shih, provided deep perspectives on digital health and the future of healthcare from a Taiwanese perspective, as well as Shih Chung-Liang, Director-General of Taiwan's National Health Insurance Administration.

Other speakers included Ed Deng, CEO of Health2Sync, who announced the upcoming launch of a digital management app for GLP-1 medications; Peter Hu of Far EasTone Telecommunications, who shared ecosystem-driven healthcare innovations; Edward Hsu of Acer Medical, who emphasized using smart technology to bridge urban-rural healthcare gaps; and Nick Hung of Deloitte Taiwan, who presented case studies showcasing digital technology's role in improving medical efficiency and fostering innovation.

Stan Shih, Co-founder and Honorary Chairman of Acer and Chairman of the StanShih Foundation, highlighted Taiwan's transformation from "vertical integration" to "vertical specialization" in the global tech industry. He called for Taiwan to expand beyond silicon wafer manufacturing and position itself as the world's leading "Island of Innovation," driving forward a new technological paradigm.

Rostina Yoon, Vice President of Strategy and Delivery at Syneos Health, discussed how the company leverages AI-driven predictions and insights to improve clinical trials, focusing on trial efficiency, study design, reducing patient burden, and continuously driving innovation.

Mariëlle Lagers, Executive Director for Taiwan and South Korea at the Netherlands Foreign Investment Agency (NFIA), stated that with the European Medicines Agency (EMA) headquartered in the **Netherlands**, the country plays a leading role in promoting regulatory science innovation and pharmaceutical safety. For Asian biotech companies interested in expanding into the European market and conducting multicenter clinical trials internationally, the Netherlands is an ideal partner, stated Mariëlle.

Yoshiaki Tsukamoto, Executive Director of the **Japan** Bioindustry Association (JBA), highlighted that Japanese companies have substantial financial resources and expressed the country's ambition to direct more investments into cutting-edge technologies and startup development.

Murali P.M., former Chairman of the Association of Biotechnology Led Enterprises (ABLE) **India**, shared that India is actively promoting biotech manufacturing policies, optimizing regulations around biosimilars, and has established a US\$12 billion R&D fund to support the biotech sector's growth.

Jurie Hwang, Director of Public Affairs at the **Korea** Biotechnology Industry Organization (KoreaBIO), emphasized the importance of cross-border investment in accelerating biotech innovation and collaboration across Asia.

The **Philippines** announced its plan to establish a biotechnology park with substantial investment, planned to elevate its fast-evolving biotech infrastructure and strategic policy and location to attract more biotech companies to the region.

In addition, between July 23–24, thirty companies pitched at the Investment Forum. During the event, senior executives from global venture capital firms discussed acquisition strategies and licensing trends. The forum featured investment pitches from 30 outstanding companies, with presentations covering topics such as cell and gene therapy, drug development applications, cancer clinical trials and diagnostics, government and academic innovations, and novel raw material applications. Taiwan's biotech R&D and clinical capabilities were demonstrated in these presentations. A special program of innovation presentations was also presented by 40 exhibitors.

The **Regional Collaboration Forum** facilitated discussions on harmonizing biotech efforts across borders, focusing on policy alignment and shared regulatory roadmaps among ASEAN and Northeast Asian representatives. A key highlight was Japan's presentation of its top biotech companies, showcasing advancements in mRNA platforms, regenerative medicine, and precision oncology. Hiroshi Takeda of JBioConnect emphasized Japan's commitment to regional collaboration, stating, "Our goal is not just to export Japanese innovation but to co-create with partners across Asia. The Regional Collaboration Forum dedicated sessions by countries including the United States, Canada, Australia, Belgium, Japan, and India.

George Hara, the 2024 BIO Asia Award winner and UN ambassador, highlighted the urgent need to address global wealth inequality, attributing it to the misuse of capitalism. At BIO Asia–Taiwan 2025, he presented "Public Interest Capitalism," advocating for fair profit distribution among employees, communities, and long-term investors. Hara stressed that corporate success should prioritize innovation and long-term R&D over short-term gains, urging companies to focus on creating valuable products rather than chasing IPOs. Hara discussed how the biotechnology sector can drive economic growth and create meaningful social value.

Claire Skentelbery, Chair of the ICBA and President of EuropaBio, emphasized the role of biotech in fostering global collaboration and resilience. EuropaBio supports industry growth through regulatory advocacy and cross-sector partnerships, aiming to enhance the EU biotech sector's competitiveness.

Society is at a critical juncture where biotechnology intersects with artificial intelligence (AI), redefining diagnosis, treatment, and disease prediction. My Linh Kha, Senior Vice President of Amgen for Japan and the Asia Pacific, highlighted the need for early health risk detection and evidence-based interventions, particularly as Taiwan becomes a super-aged society facing age-related disease burdens. She also noted that Amgen is advancing AI-designed small molecule drugs, currently in Phase II clinical trials.

Meanwhile, Tang Prize Laureate Jens Juul Holst shared his groundbreaking discovery of GLP-1 receptor agonists, which have led to innovative treatments for obesity and diabetes. These include oral GLP-1 agonists like semaglutide and Orforglipron, which show promise in reducing risks of diabetic kidney disease, cardiovascular disease, dementia, chronic inflammation, opioid abuse, and cancer.

Experts shared groundbreaking advancements in Alzheimer's diagnosis and treatment. Makoto Higuchi, Director of Japan's National Institute for Quantum Science and Technology's Advanced Neuroimaging Center, discussed molecular imaging probes for neurodegenerative diseases. A recent advancement in the technology of brain positron emission tomography (PET) was presented by Taigo Yamaya, Head of the Imaging Physics Group at Quantum Science and Technology (QST).

BIO Asia-Taiwan 2025 focused on advancing Alzheimer's diagnosis and treatment, with a keynote by Deputy Minister of Health and Welfare Lue Jen-Der, who highlighted Taiwan's vision for a "2025 Dementia Friendly Taiwan 777." This initiative aims for 70% of family caregivers to have support, 70% of dementia patients to receive diagnosis and care, and 70% of the public to adopt a dementia-friendly attitude. Lin Shih-Chia, CEO of the Foundation of Medical Professionals Alliance in Taiwan, provided an overview of Alzheimer's, while Wu Hsi-Wen, Deputy Director of the Long-Term Care Department, shared the national policy vision for dementia care, emphasizing the inclusion of all age groups in the long-term care system.

Hsu Jung-Lung, Chairman of the Taiwan Dementia Society, detailed the clinical aspects of Alzheimer's, and Yukio Ishikawa from Eisai discussed milestones in therapies targeting β -amyloid. Ming-Kuei Jang, CEO of APN Life Sciences, introduced next-generation diagnostic methods and innovative therapies using immunotherapy and protein degraders to address brain lesions.

Using the company's biochip platform, Lu Lu-Yi, CEO of Taiwan's Novascope Diagnostics, highlighted the development of blood diagnostic technology. Anilil Therapeutics CEO, Sanghoon Park, discussed astrocytes' role in clearing brain lesions,

while Hung-Kai Kevin Chen, Chairman and CEO of Elixiron Immunotherapeutics, talked about innovative approaches to treating Alzheimer's by inhibiting microglia-induced neuroinflammatory responses.

David Flores, co-founder and CEO of BioCentury, discussed the importance of capital efficiency and speed, highlighting that Asia's centers of excellence must collaborate across borders to achieve success.

PwC Australia's Head of Pharma, MedTech, and Life Sciences, Nick Meadows, shared insights on how genomic technologies are being practically applied. He outlined four strategies for creating differentiated positioning in the genomic bioanalytics market: value improvers, product portfolio managers, testing innovators, and research collaborators.

Coverage by Hithaishi Bhaskar