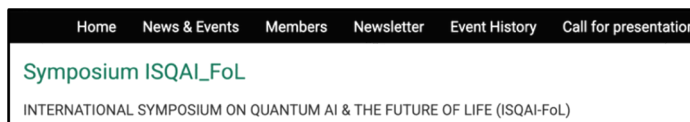


Activities

[1] **2026/6/29 – 30 (coming soon) - INTERNATIONAL SYMPOSIUM ON QUANTUM AI & THE FUTURE OF LIFE (ISQAI-FoL)**

The International Symposium on Quantum AI and the Future of Life aims to create an interdisciplinary platform for thought leaders, practitioners, and researchers from diverse fields to explore the transformative potential of quantum computing and artificial intelligence (AI) in shaping the future of human well-being. This event will focus on cutting-edge applications of these groundbreaking technologies across four key domains: Biomedicine & Healthcare, Integrating Traditional Chinese Medicine and Western Medicine, Longevity and Anti-aging, and Life Optimization.

Click [here](#) for more information.



[2] **Feb. 2026** - We successfully had a proposal accepted for the Fujitsu Quantum Simulator Challenge 2025–26 event. Click [here](#) for more information.



[3] **Feb. 2026** - We recently secured approval for five Ministry of Education–funded programs in Taiwan, creating valuable learning pathways for young people. These programs support international exchange and advanced training at globally recognized universities, helping students build interdisciplinary knowledge, research skills, and global perspectives in fields such as artificial intelligence, quantum computing, biomedical science, systems medicine, and robotics.

Click [here](#) for more information.

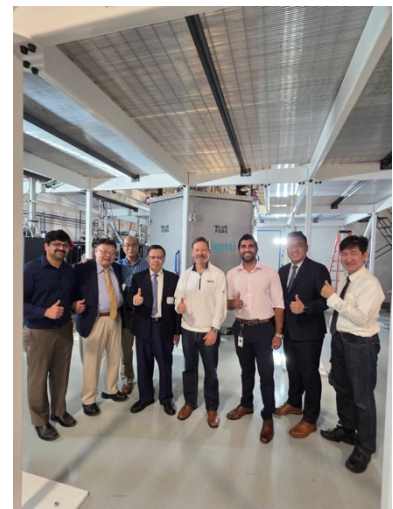
I-9-10	Ⓣ	IBM量子夢：紐約研習營	美國紐約	(九)科技網絡及數位服務	制霸IBM量子科技巔峰	115年7月13日至7月28日，共計16日 (含飛行日)
I-9-11	Ⓣ	醫工量子：UCLA 菁英計畫	美國加州洛杉磯	(九)科技網絡及數位服務	探索腦科學與量子計算	115年7月6日至9月3日，共計60日 (含飛行日)
I-9-12	Ⓣ	量子金融：赴美職涯領航	美國大紐約區	(九)科技網絡及數位服務	跨足量子與AI金融實務	115年7月6日至8月9日，共計35日 (含飛行日)
I-9-13	Ⓣ	AI與石黑浩：探索擬真世界	日本大阪	(九)科技網絡及數位服務	台日共創人形機器人新未來	115年8月1日至116年1月15日，共計168日 (含飛行日)
I-9-14	Ⓣ	勇闖WVU：太空機器人實戰	美國摩根敦	(九)科技網絡及數位服務	太空採集機器人見習	115年7月6日至7月23日，共計18日 (含飛行日)

[4] **From March 16 to 19**, Asia University’s AIQRC is actively advancing its forward-looking strategy. President Jeffrey J. P. Tsai, Honorary Chairman of AIQRC (third from the right in the photo) and Chair Professor, K.T. Huang, Director of AIQRC (fifth from the right in the photo), recently led a delegation to the United States to visit quantum technology firm Rigetti Computing, where they were hosted by Vice President Mike Piech (fourth from the right in the photo). The visit marks an important step in strengthening the university’s quantum AI strategy, fostering connections with world-class technologies, and building a solid foundation for its vision of becoming an “AI University.”

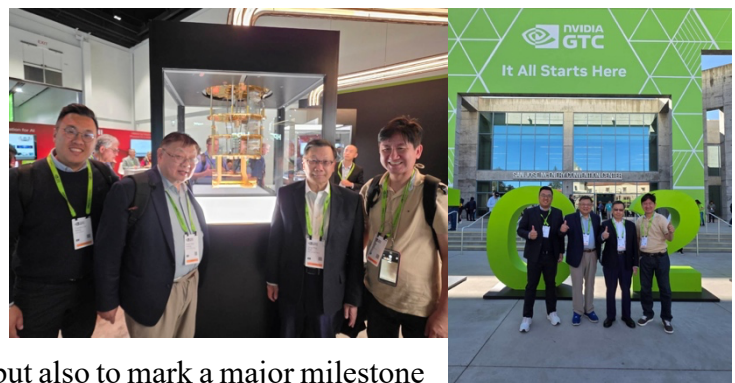


Click [here](#) for more information.

The Asia University delegation conducted an in-depth visit to Rigetti’s laboratories, inspecting hardware facilities and system architectures such as superconducting quantum computers (superconducting qubits), and gaining firsthand insight into the latest technological developments shaping the global quantum industry. President Jeffrey J. P. Tsai, Honorary Chairman of AIQRC (third from the left in the photo), Chair Professor, K.T. Huang, Director of AIQRC (second from the right in the photo) and Rigetti Computing Vice President Mike Piech (fourth from the left in the photo).



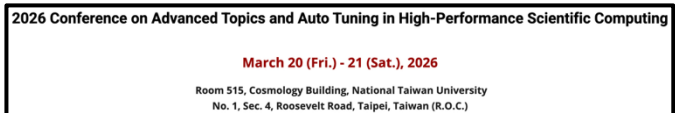
[5] **From March 16 to 19**, President Jeffrey J. P. Tsai, Honorary Chairman of AIQRC (second from the right in the photo), led teams in quantum AI, robotics, and intelligent healthcare to Silicon Valley to attend NVIDIA GTC 2026, the world’s premier annual AI conference, and engage with the global AI and semiconductor ecosystem. Tsai emphasized that the visit aimed not only to track cutting-edge technologies, but also to mark a major milestone in advancing Asia University’s AI University vision and international collaboration strategy.



Click [here](#) for more information

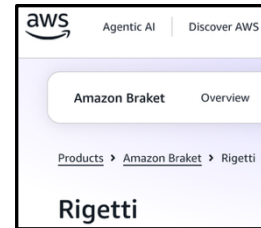
[7] On March 20, 2026 Deputy Director of AIQRC, Ka-Lok NG, delivered a presentation titled “Exploring the Potential Advantages of Quantum Machine Learning in Biomedical Research”

at the 2026 Conference on Advanced Topics and Auto Tuning in High-Performance Scientific Computing.



Click [here](#) for more information.

[8] On April 8, AIQRC received approval to use the AWS cloud-based Rigetti Computing quantum computing system.



Click [here](#) for more information.

The Inventions Rewriting Biology from the Quantum Up

Something profound is happening at the boundary of physics and biology. For most of scientific history, quantum mechanics the discipline governing the behavior of electrons, photons, and atoms was considered irrelevant to the wet, warm, noisy world of living cells. Biology was too messy for quantum effects to survive. That assumption is now being overturned. At the same moment, the informational side of biology genomics, proteomics, the vast landscapes of 'omics data has grown so complex that only artificial intelligence can navigate it. These two revolutions, quantum field science and AI-driven bioinformatics, are the defining frontiers of our term. Here are the inventions shaping that frontier right now.

Quantum Field Science: Life Through a New Lens

The year 2025 was declared the International Year of Quantum Science and Technology by UNESCO and the scientific community delivered. From proteins turned into quantum sensors, to nanoparticles exhibiting wave-like behavior, to engineered biomolecules that interact with magnetic fields, the pace of discovery has been extraordinary.

Invention 01: The Biological Qubit: A Quantum Sensor Born Inside a Living Cell [1-2]

In August 2025, researchers at the University of Chicago's Pritzker School of Molecular Engineering published a landmark paper in Nature. They took a fluorescent protein a naturally occurring molecule already used for decades as a cellular imaging tool and turned it into a functioning quantum bit, or qubit. Named a biological qubit, this protein-based quantum sensor can be genetically encoded in DNA, meaning living cells can produce it themselves.

The implications are extraordinary. Rather than engineering quantum sensors in a laboratory and attempting to insert them into cells a deeply difficult problem the cells fabricate the sensor internally, positioning it with atomic precision. In testing, the biological qubit was used to detect the presence or absence of magnetic fields inside bacterial cells, detecting signals thousands of times stronger than existing quantum sensors. Physics World Magazine named it one of the top ten scientific breakthroughs of 2025. As lead researcher Professor Peter Maurer explained, this gives scientists something previously impossible: an MRI sensor the size of a single molecule capable of observing biological processes from the inside, at the quantum level.

Invention 02: Quantum-Enabled Proteins: Engineering Quantum Effects into Biology [3-4]

One month later, in January 2026, a team at the University of Oxford's Department of Engineering Science published a second transformative result in Nature. Using directed evolution, a technique that mimics natural selection in the laboratory by introducing random DNA mutations and selecting the most promising variants the team engineered an entirely new class of biomolecules: magneto-sensitive fluorescent proteins, or MFPs.

MFPs can interact with magnetic fields and radio waves through quantum mechanical processes within the protein itself, triggered by exposure to specific wavelengths of light. The technique involved thousands of protein variants across many rounds of evolutionary selection, progressively improving the proteins' sensitivity to magnetic fields. The resulting molecules are the first known instance of engineering biology, quantum physics, and artificial intelligence intersecting to create an entirely new class of technology and researchers believe they may be used as ultra-sensitive biological detectors, diagnostic tools, and therapeutic imaging agents. The first author, Gabriel Abrahams, captured what makes this discovery so striking: the researchers did not design the quantum sensor from scratch. Nature found the solution through evolution.

Invention 03: Quantum Biosensing on Diamond: A 49-Channel Molecular Detector [5-6]

A third quantum breakthrough emerged from the intersection of materials science and biology. Researchers published a scalable quantum biosensing platform that integrates a multiplexed DNA microarray directly onto a diamond chip surface. Using nitrogen-vacancy (NV) centers atomic defects in diamond that are exquisitely sensitive to magnetic fields and temperature the platform enables simultaneous detection of 49 distinct biomolecular features with high spatial resolution.

The mechanism is elegant: when a target biomolecule binds to its complementary DNA strand on the chip, it triggers a detectable quantum signal change in the underlying NV center. This platform establishes a new paradigm for high-throughput quantum biosensing in complex biological environments, with clear applications in molecular diagnostics, early disease detection, and looking ahead large-scale quantum sensor networks capable of screening thousands of biomarkers simultaneously from a single sample.

Invention 04: Quantum Wave Behavior in Nanoparticles: Pushing the Boundary of Classical and Quantum [7]

At ETH Zurich and the Institute of Photonic Sciences in Barcelona, a team led by Massimiliano Rossi cooled silica nanoparticles around 100 nanometers in diameter, still visible under a microscope to temperatures close to absolute zero, extending their quantum wave-like behavior to 73 picometers. Separately, at the University of Tokyo, researchers performed the first quantum mechanical squeezing on a nanoparticle, narrowing its velocity distribution in a way only quantum mechanics allows.

These experiments push the fundamental boundary between the quantum and classical worlds. They also advance the technology of mechanical quantum sensors devices that could eventually detect gravitational waves, probe dark matter, and measure biological forces at the cellular level with sensitivity impossible through any other means.

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