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National Taiwan University Official Quarterly

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A Nobel Laureate Explores the Brain's "GPS"

- NTU, Singapore Management U Expand Partnership
- A New Model for Energy Resilience
- Exhibition Chronicles the Nobel Prize

NTU Racing's Pursuit of Reinvention

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HONOR

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On March 13, 2026, National Taiwan University (NTU) welcomed a delegation from Singapore Management University led by President Lily Kong. The high-level visit underscored the growing partnership between the two institutions...

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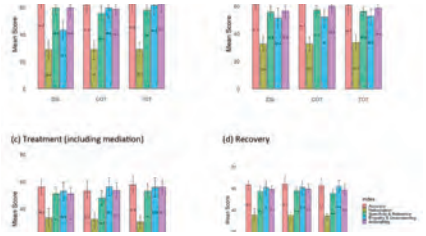
ACHIEVEMENTS



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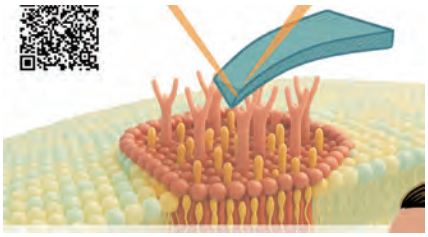

Atomic Force Microscopy Reveals Nanoscopic Raft Dynamics on Cell Membranes: From Hypothesis to Visualization

A collaborative research team of four professors and several graduate students, including Prof. Richard P. Cheng, Prof. Ja-an Annie Ho, Prof. Chun-hsien Chen of the Departments of Chemistry and Biochemical Science and Technology at National Taiwan University, and Prof. Li-Chen Wu of the Department of Applied Chemistry at ...

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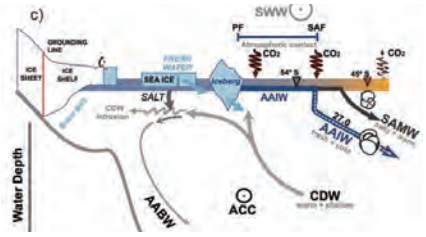

Southern Ocean Intermediate Waters Held the Key to Earth's CO2 Past

For decades, oceanographers considered the deep ocean to be the primary natural reservoir for storing atmospheric carbon dioxide (CO2). However, a new international study led by Dr. Raúl Tapia and Associate Professor Sze-Ling Ho of the Institute of Oceanography at National Taiwan University challenges this long-standing assumption. By reconstructing 600,000 years of ocean history, the research team discovered that the ...

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Backpack-Sized Biodiesel System Offers New Model for Energy Resilience

As global energy instability intensifies, researchers at National Taiwan University have developed a portable biodiesel fuel production system compact enough to fit inside a backpack — a breakthrough that could significantly accelerate emergency energy access in disaster zones and remote regions.

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TEACHING & LEARNING

A Nobel Laureate Explores the Quiet Revolution of "Click Chemistry"—and Why It Matters Now

When Morten P. Meldal participated in pioneering the path to "click chemistry," he did not simply identify a new category of reactions; he changed the way chemists think.

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A Nobel Laureate Explores the Brain's "GPS"—and What It May Reveal About Alzheimer's

On February 9, 2026, May-Britt Moser addressed her audience at National Taiwan University on a profoundly complex and deeply human concern: how we find our way. How we find our way, not just through cities or country landscapes, but through labyrinth of memory itself.

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From Atomic Structures to Molecular Medicine: ...

When the COVID-19 pandemic swept across the globe, scientists redoubled their efforts, racing not only against the virus, but against time itself.

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Academician James C. Liao Explores the Future of Technology and Humanity ...

On March 6, 2026, National Taiwan University welcomed back distinguished alumnus Academician James C. Liao, a world-renowned pioneer in metabolic...

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Learning From the Top: D-School Launches Executive-Led Internship ...

The College of Design and Innovation (Stanley Wang D-School), National Taiwan University (NTU) has initiated a new kind of internship—one that ...

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Hope, Knowledge, and Society: A New Chapter for SPE

The heart of SPE is expressed by its Latin motto: SPE Scientiae, SPE Civitatis. "*Spe*" means hope in Latin, but it is also the School's acronym, reflecting its dual mission to advance knowledge (Scientiae) and serve society (Civitatis). At the ...

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PEOPLE

"Conversations with Nobel": NTU Exhibition Explores the Enduring Spirit Behind the Nobel Prize

To deepen Taiwan's engagement with the global academic community, National Taiwan University and the Swedish Representative Office in Taiwan jointly launched the special exhibition "*Conversations with Nobel: Echoes and Origins of the Nobel Prize*" on May 4 at NTU's General Building of Liberal Education.

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At Career Expo, the Future of Work Starts to Take Shape

On March 7, National Taiwan University opened the doors to what is now the largest campus recruitment fair in Taiwan—an event that runs less like a typical job market and more like a...

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Campus Comes Alive at Club Fair

Each spring, as brightly colored azaleas bloom all around the National Taiwan University campus, something else comes into full view: the collective energy of student life.

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Administration Building Marks a Century at the Heart of Taiwan's ...

For 100 years, the Administration Building at National Taiwan University has stood as the heart of the university's evolving history—witness to colonial ...

...more

NTU Commencement 2026: Graduates Called to Lead with Resilience, Purpose, ...

National Taiwan University celebrated its 2026 Commencement Ceremony on May 30, sending off a new generation of graduates with an inspiring call for...

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FEATURES

Racing Against Time: Inside NTU Racing's Pursuit of Speed, Precision, and Reinvention

Intro-video of NTU Racing.

Raindrops fell steadily on campus the day National Taiwan University's racing team unveiled its latest electric Formula-style racecar.

Through the mist and puddles of Palm Avenue, a race car soared down the slick boulevard, slicing tight figure eights between rows of umbrella-grasping spectators. The crowd gasped as the orange, blue, and white machine accelerated and braked amid the downpour. The tricolor machine was called Epsilon 6, or EP6 — a racecar designed, built, and tested entirely by students of NTU Racing.

For the team behind its inception, development, and trials, the moment meant far more than a public demonstration or press conference; it marked the culmination of months spent shedding milliseconds, solving engineering failures, and mastering the art of persevering under relentless pressure.

NTU Racing's development base at NTU's ShuiYuan Campus.

Built in the Rain

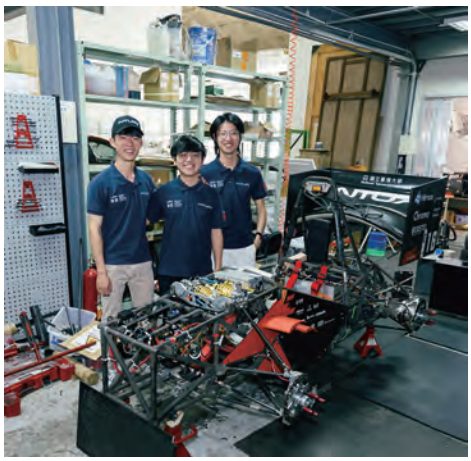
EP6 was completed in late June 2025 and immediately entered the Formula Student Taiwan (FST) competition at the Maxxis Proving Ground in Yunlin County in early July.

It rained there, too. "And, because the car is entirely electronic, we learned that waterproofing is critical," recalled team captain Wei-Zhe Hu. It was a painful lesson. During that day's competition, water seeped into the motor system, causing a malfunction so severe that the team had to withdraw from the endurance race.

That mishap notwithstanding, Formula Student Taiwan had served a crucial purpose: it was the proving ground before the team's ultimate challenge — Formula SAE Japan (FSAEJ), one of Asia's leading competitive collegiate racing events. By facing such challenges in the test drives, the team discovered the crucial weaknesses in EP6, made improvements, and refined the car's overall design before the real battles began.

By September, when the team arrived at Aichi Sky Expo in Japan, they again were welcomed by steady rain. By then, however, they had solved the waterproofing problem. But a more serious obstacle presented itself during the technical inspection. After completing the competition's static events — including business, cost, and design presentations — EP6 still had to pass a rigorous mechanical inspection before entering the grueling races.

The stern-faced judges raised safety concerns about the vehicle- - and initially rejected it.



From left to right: Team Captain Wei-Zhe Hu, former Team Captain Chen-Shuo Hsu, and Electrical Systems Leader Tai-Jie Wang.

NTU Racing's research on torque vectoring and traction control was published and presented at the SAE WCX 2026 World Congress.

The Team Strongly Disagreed

"It was a huge gamble," Hu said. "If the protest failed, we would lose a significant number of points." While some members hurriedly drafted technical arguments for the appeal, others prepared for the worst-case scenario, discussing emergency modifications that could be made on-site if necessary.

In the end, the chief judge accepted the team's appeal. EP6 was cleared to compete in its original form. On the rain-soaked track in Aichi, the car achieved the best result in team history: 11th place in the electric vehicle category, together with the JAMA Chairman Award and the Sportsmanship Award.

A Race Against Time — On and Off the Track

For NTU Racing, motorsport is as much about racing against time as engineering. "Racing is a sport obsessed with time," Hu declared. "The goal is not to build the perfect car. It's to build the best car you can before the clock runs out." That tension — between achieving perfection and meeting deadlines — creates constant pressure in the team's workflow. Members constantly innovate design tweaks for marginal improvements, pushing back production, only to find themselves scrambling at wit's end just before the race begins.

To foster synergy and speed up development, the team places enormous emphasis on the technical succession across generations of leadership. Each May, newly selected team leaders begin shadowing the team veterans, months before formal

handover of the baton takes place in September. The team also holds workshops on welding, carbon-fiber fabrication, and other manufacturing skills, so teammates from all academic backgrounds may participate in the engineering process.

Because NTU Racing draws students from across the university — not just engineering departments — not every member contributes directly to the vehicle design. But, understanding the development process allows everyone to apply their own expertise to the team's broader efforts. Former captain Chen-Shuo Hsu believes it is the team's interdisciplinary collisions of ideas that give NTU Racing its identity.

Evolving Designs, Unchanging Spirit

"Go the extra mile. Sky is the limit." This has been NTU Racing's motto since its inception. Both Hsu and Hu point out that there is no single right answer in engineering, meaning there is always room for improvisation and innovation. This is the shared vision of both team captains, which they instill in the team: take it one step at a time, and improve with every iteration.

Until 2024, the team operated out of an aging metal workshop of the Department of Mechanical Engineering. Tai-Jie Wang, electrical systems leader, lamented that the space had "no air conditioning or drinking water." During the summer, students often waited until nightfall to weld components because the daytime heat and humidity inside the building were unbearable. "It felt like we were working through the night and sleeping during the day," Wang recalled. The conditions were difficult, but they also reflected the team's seriousness and devotion.

Ironically, losing that workshop became an opportunity. After the old facility was demolished, the university helped the team relocate to a significantly upgraded research space on NTU's ShuiYuan Campus: the Advanced Vehicle Research Center.

Inside the new headquarters hang racing suits from previous generations alongside the skeletal frame of EP6, already evolving into its successor: EP7.

The next-generation car will retain EP6's torque vectoring system — an algorithm that controls vehicle dynamics while cornering — and upgrade its torque from dual motors to a four-wheel-drive configuration expected to significantly improve acceleration and handling performance.

For NTU Racing, every retired car becomes the foundation for the next generation.

Progress is measured not only in trophies, but in iteration, resilience, and the willingness to keep moving one more step further down the track.

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HONOR

NTU Reaches Record Heights in QS World University Rankings and THE Sustainability Impact Rankings

The Global Sustainable Development Congress convened more than 5,000 leaders representing academia, industry, government, and civil society from over 100 countries, to explore pathways toward global sustainable development, making it one of the world's premier higher education forums on sustainability development.

National Taiwan University (NTU) has reached new milestones in two of the world's benchmark university assessments, achieving its highest-ever position in both the QS World University Rankings 2027 and the Times Higher Education (THE) Sustainability Impact Rankings 2026.

NTU ascended to No. 54 worldwide in the latest QS World University Rankings, surpassing the previous year's performance by nine places, to reach its highest ranking in history. The university's most robust gains were driven by advances in research impact, internationalization, graduate employability, and sustainability.

NTU achieves its highest-ever ranking, rising to No. 54 in QS World University Rankings 2027.

Excellence Across Research, Education, and Global Engagement

NTU's academic strength continues to expand across disciplines. All five of

its major subject areas are now ranked among the world's top 100, with seven individual subjects placing within the global top 50. Notably, NTU entered the world's top 10 in Classics and Ancient History for the first time, ranking No. 6 globally.

The university also made significant progress in internationalization. In recent years, NTU has strengthened its strategic partnerships with leading universities worldwide, established joint international research centers and laboratories, and collaborated with Academia Sinica and other partner institutions through the Taiwan Bridges Program. Complementing these research initiatives are a number of global talent programs—including the International Mentorship Program, Overseas Internship Program, iNGO Academy, and the Beyond Borders overseas learning initiative—which attract outstanding students and scholars from across the globe while expanding international mobility.

Graduate employability remains another defining strength. NTU once again received a perfect score in the Employment Outcomes indicator, which measures both graduate employment and the global achievements of alumni. The recognition reflects the university's continued emphasis on experiential learning and industry engagement through such initiatives as Interdisciplinary Career Immersion – Mentorship Program, Learn from CEOs & Chairpersons | NTU Elite Mentorship Internship Program, and its newly launched Global Innovation Program, which enables students to pursue startup learning experiences abroad.

NTU also continuously improves its sustainability performance, earning a score of more than 90 points—ranking first in Taiwan and fourth in Asia on the QS sustainability indicator.

"Our mission as a university extends beyond rankings," said NTU President Wen-Chang Chen. "We remain committed to educating future leaders and contributing knowledge and research that address society's most pressing challenges. Thanks to the continued support of the Ministry of Education, government agencies, and our industry partners, NTU strives to achieve steady progress in every aspect."

A Historic Milestone in Global Sustainability

NTU also reached a historic milestone in the THE Sustainability Impact Rankings 2026, announced during the Global Sustainable Development Congress in Jakarta, Indonesia.

The university ranked 10th in the world, marking both NTU's highest-ever placement and the best performance ever achieved by a Taiwanese university. During the congress, Times Higher Education also presented NTU with a Certification of Achievement, recognizing its outstanding global contributions toward advancing the United Nations Sustainable Development Goals (SDGs).

During the summit, President Chen unveiled NTU's sustainability strategy through three complementary approaches: Innovate, transform research into practical solutions; Inspire, embed sustainability into everyday campus life; and Integrate, extend the university's impact beyond the campus through partnerships

NTU President Wen-Chang Chen affirming that, while the university makes steady progress in research excellence and internationalization, NTU will continue to view global rankings with humility and strive for continuous improvement across all dimensions.

NTU ranks 10th worldwide in the THE Sustainability Impact Rankings 2026—the university's highest ranking to date and the best performance ever achieved by a Taiwanese university.

Honorably representing Taiwan at the THE Sustainability Impact Rankings certification ceremony, NTU President Wen-Chang Chen delivering a keynote address titled "Acting Together: The True Measure of University Excellence."

with communities, industry, and government.

"As Taiwan's leading university, NTU has a responsibility not only to excel academically, but also to drive sustainable progress throughout society," President Chen said.

NTU's strong performance reflects the comprehensive approach emphasized by THE, particularly in partnership building (SDG 17) and societal engagement. Four individual SDGs ranked among the global top 10:

- SDG 2: Zero Hunger — 3rd worldwide
- SDG 3: Good Health and Well-being — 4th worldwide
- SDG 9: Industry, Innovation and Infrastructure — 9th worldwide
- SDG 14: Life Below Water — 10th worldwide

University officials observed that these achievements represent the collective efforts of NTU's faculty, students, researchers, and staff. Moving forward, NTU will continue strengthening its four strategic pillars—Research Excellence, University Governance, Societal Engagement, and Educational Impact—while working closely with global partners to facilitate optimal realizations of knowledge with positive societal impact.

As the university approaches its centennial, these historically high rankings testify to NTU's growing role as a globally engaged research university, committed not only to academic excellence, but equally to addressing the complex challenges facing society through innovation, collaboration, and sustainable development.

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GLOBAL OUTLOOK

NTU and Mahidol University Deepen Collaboration in AI and Medical Innovation

Group photo of representatives from NTU and Mahidol University.

National Taiwan University (NTU) welcomed a delegation from Mahidol University for high-level discussions on artificial intelligence, medical research, and future academic collaboration on March 5, 2026.

Led by Vice President Nopraenue Sajjarax Dhirathiti, the delegation included 12 faculty representatives specialized in information technology and medicine. The visitors were received by NTU Executive Vice President Prof. Shih-Torng Ding and Vice President for International Affairs Prof. Hsiao-Wei Yuan, underscoring the close and long-term partnership between the two institutions.

Founded in 1888, Mahidol University is one of Thailand's leading universities, especially in medicine, engineering, and health sciences. The university maintains close academic and research ties with NTU in medicine, engineering, and information and communication technology.

High-level delegation from NTU's partner institution, Mahidol University, Thailand, led by Vice President Nopraenue Sajjarax Dhirathiti and including 12 faculty members in information technology and medicine, visited NTU.

During the visit, the delegation toured the NTU Cancer Center to observe first-hand how artificial intelligence is being integrated into cancer diagnosis, treatment, and clinical care. The visiting faculty members were welcomed by NTU's College of Electrical Engineering and Computer Science, to hold discussions on future research collaboration, interdisciplinary innovation, and talent cultivation.

Both universities expressed particular interest in expanding cooperation in crucial areas, such as AI in medicine, intelligent healthcare, and digital health technologies. Representatives from both universities noted that the bilateral partnership reflects a growing global effort to integrate advanced technological innovation with medical research and healthcare delivery.

By strengthening their joint research initiatives and academic exchange programs, NTU and Mahidol University aspire to cultivate globally competitive talent capable of shaping the future of AI-driven healthcare.

The delegation from Mahidol University posing for group photo with the NTU Cancer Center team.

The delegation visits the NTU Cancer Center to learn how AI is being applied in cancer treatment and clinical care.

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NTU and Singapore Management University Expand Partnership in Business Education and Global Talent Development

Share:

NTU welcomes a delegation from partner institution Singapore Management University, led by President Lily Kong in her first official visit to NTU since taking office.

On March 13, 2026, National Taiwan University (NTU) welcomed a delegation from Singapore Management University (SMU) led by President Lily Kong. The high-level visit underscored the growing partnership between the two institutions and their shared commitment to cultivating globally competent and engaged talent.

The delegation was received by NTU President Wen-Chang Chen for discussions on business education, interdisciplinary collaboration, and international academic exchanges. The visit also marked President Kong's first official visit to NTU since assuming leadership of SMU.

Founded in 2000, Singapore Management University is widely recognized as one of Asia's leading institutions in business and management education. Modeled

after the American university system, SMU emphasizes interdisciplinary learning, research excellence, and close engagement with industry and public-sector partners.

During the visit, representatives from both universities explored new areas to deepen collaboration between SMU's business school and NTU's College of Management. Discussions focused on curriculum innovation, joint research initiatives, student mobility, and the potential expansion of dual-degree and collaborative academic programs.

Representatives from the two institutions also reflected on the existing areas of cooperation, including SMU students' participation in NTU's International Internship Program. Through placements in such organizations as STMicroelectronics, the State of Montana Asia Trade Office–Taiwan, Taipei Language Institute, Calls Over Ridges and Impact Hub Taipei, participating SMU students have had firsthand experience in cross-cultural and interdisciplinary professional environments.

Looking ahead, NTU representatives expressed interest in deepening the connection with SMU's Global Summer Program, to create additional pathways for NTU students to pursue internships and academic experiences in Singapore.

University leaders highlighted that the partnership reflects a broader vision for higher education in the Asia-Pacific region—one that integrates business, innovation, and international collaboration to prepare students to meet the increasingly interconnected global challenges.

NTU President Wen-Chang Chen and Singapore Management University President Lily Kong exchange commemorative gifts.

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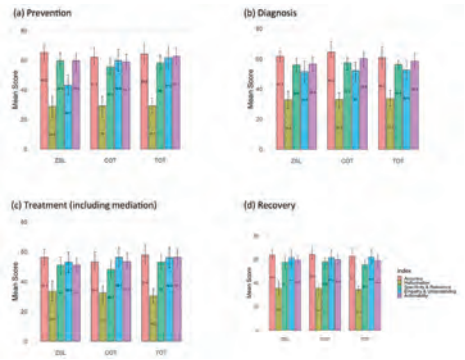
Can AI Help Prevent and Treat Stroke? A New Study Explores Its Potential and Limitations

Stroke is one of the leading causes of death and disability worldwide, disproportionately affecting lower socioeconomic groups. However, current generative AI chatbots are still not reliable enough for giving case-relevant information about stroke.

A research team from National Taiwan University and Harvard T.H. Chan School of Public Health tested three generative large language models (LLMs)—ChatGPT, Claude, and Gemini—across four stages of stroke care: prevention, diagnosis, treatment, and rehabilitation. Adopting three prompt engineering strategies—Zero-Shot Learning (ZSL), Chain of Thought (COT), and Talking Out Your Thoughts (TOT) —the team gave the LLMs patient-oriented questions in realistic stroke scenarios. Clinical experts then evaluated the answers across five domains—accuracy, hallucinations, specificity, empathy, and actionability, and assessed model performance according to the passing threshold (a score ≥ 60/100) of the medical doctor qualification exam as the minimum acceptable level for generated outputs. The test results are published in the journal npj *Digital Medicine*.



Average performance scores of prompt engineering techniques in the four stages of stroke care across five domains.

Click or Scan the QR code to read the full article published in npj *Digital Medicine*.

The study revealed that while each prompt engineering approach has its strengths, the overall performance of the LLMs demonstrated suboptimal and inconsistent performance across all stages of stroke care and domains. Most scores fell below the minimum clinical competency threshold of 60. TOT emerged as the most effective prompt strategy for generating responses with empathy and actionability, ZSL tended to provide responses with fewer hallucinations, and COT demonstrated strengths in diagnosis. ChatGPT performed better in accuracy and specificity, and actionability domains, but still poses the risk of generating hallucinations. The study outcome indicated significant limitations of LLMs in delivering clinically relevant and actionable outputs for the public. In time-sensitive situations, such as stroke, the risk of mis-information or oversimplification could lead to inappropriate or delayed care.

“Generative AI could help reduce health disparities and alleviate workforce shortages, especially in underserved regions,” said first author Prof. John Tayu Lee from National Taiwan University. “To realize this potential, we must continue to

advance the technology and empower patients to ask better questions—leading to safer and more meaningful answers."

Co-author Professor Rifat Atun from Harvard University added, "AI can accelerate global health equity if deployed responsibly—with strong governance, rigorous clinical validation, and sustained human oversight to ensure both safety and appropriateness."

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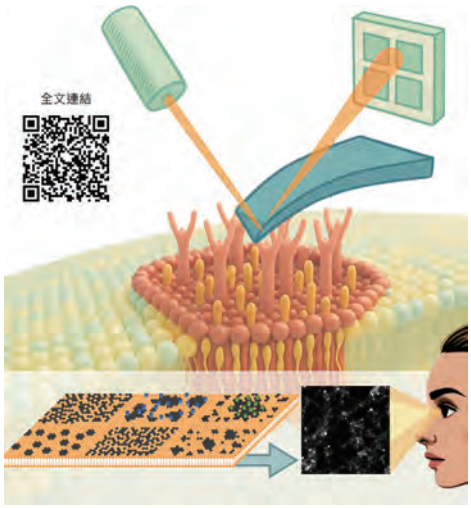
Atomic Force Microscopy Reveals Nanoscopic Raft Dynamics on Cell Membranes: From Hypothesis to Visualization

A collaborative research team of four professors and several graduate students, including Prof. Richard P. Cheng, Prof. Ja-an Annie Ho, Prof. Chun-hsien Chen of the Departments of Chemistry and Biochemical Science and Technology at National Taiwan University, and Prof. Li-Chen Wu of the Department of Applied Chemistry at National Chi Nan University, has made a long-sought breakthrough. By combining atomic force microscopy (AFM) with a Hadamard product–based image reconstruction algorithm, the researchers successfully achieved visualization, for the first time, of the nanoscopic dynamics of membrane rafts in live cells, making visible these subtle dynamics that had long remained invisible on the cell membrane.



Observing submicrometer-scale membrane rafts on living cells.

Click or Scan the QR code to read the full article published in the *Science Advances*.

Membrane rafts are nanometer-scale structures rich in cholesterol and sphingolipids, thought to serve as vital platforms for cell signaling, viral entry, and cancer metastasis. Since the conception emerged in the 1990s, the existence and behavior of these lipid domains have been intensely debated. Conventional fluorescence microscopy, usually performed on fixed and stained cells, could not capture the key features that are only tens of nanometers wide and change within seconds. Consequently, even the question of whether such rafts exist on live membranes remained unanswered for decades.

Led by PhD candidates Ms. Hsiang-Ling Chuang and Ms. Yu-Chen Fa, the research team employed high-resolution AFM together with Hadamard product–based image processing to record, in real time, the formation, fusion, and dissolution of membrane rafts on live cell surfaces. Using C-Laurdan phase-sensitive dyes and integrin co-localization imaging, they demonstrated that the nanoscale domains observed by AFM indeed correspond to membrane raft structures. This groundbreaking discovery, published in *Science Advances*, marks the first direct visualization of lipid raft dynamics in live cells.

The study revealed that these rafts are highly dynamic liquid-ordered (Lo) regions, usually 10 to 200 nanometers in diameter, continuously reorganizing through

interactions among lipids, proteins, and the cytoskeleton. According to Prof. Chun-hsien Chen, AFM provides nanoscale measurements of surface height and stiffness on live cells, while Hadamard product analysis effectively suppresses irrelevant background signals, enhancing the visibility of the raft-related features. “This combination allows us to identify subtle, transient signals that conventional optical techniques could never resolve,” Prof. Chen explained.

Building on the current understanding of membrane rafts, Prof. Ja-an Annie Ho noted, “This technology, which enables the visualization of membrane dynamics in real time, could become a rapid screening platform for drug discovery.”

Integrating chemistry, biophysics, and biochemical technology, this interdisciplinary research opens a new window into the nanoscale organization of live membranes, offering powerful new tools for drug development and disease mechanism research.

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ACHIEVEMENTS

Southern Ocean Intermediate Waters Held the Key to Earth's CO2 Past

For decades, oceanographers considered the deep ocean to be the primary natural reservoir for storing atmospheric carbon dioxide (CO2). However, a new international study led by Dr. Raúl Tapia and Associate Professor Sze-Ling Ho of the Institute of Oceanography at National Taiwan University challenges this long-standing assumption. By reconstructing 600,000 years of ocean history, the research team discovered that the oft-overlooked "Antarctic Intermediate Water" (AAIW), located 500–1,500 meters below the ocean surface, has played a critical role in regulating atmospheric CO2 over the past several glacial cycles. The study findings were published in *Science Advances*.

The study concentrated on the "Mid-Brunhes Event" (MBE), a major climate transition that occurred around 424,000 years ago. Earth's climate naturally alternates between glacial and interglacial periods, accompanied by ~100 parts per million (ppm) glacial–interglacial CO2 swings. During the MBE, however, interglacial CO2 concentrations unexpectedly rose by an additional ~35 ppm compared with the preceding cycle. Previous theories mainly attributed this shift to changes in deep Southern Ocean circulation, but climate models have struggled to fully account for the phenomenon.

Examining sediment cores collected in the South Pacific—one of the least-sampled ocean regions in the world—the researchers reconstructed long-term temperature and salinity changes in AAIW. Their results revealed a major contrast before and after the MBE.

Before the MBE, AAIW was colder and fresher. Colder water has a greater capacity to dissolve CO2, boosting ocean uptake from the atmosphere. Once absorbed, strong stratification acted as a barrier, locking that carbon away in deeper waters for long periods.

After the MBE, AAIW became warmer and saltier, reducing its capacity to dissolve CO2. At the same time, weaker ocean stratification allowed more carbon to escape back into the atmosphere, consistent with the observed rise in atmospheric CO2.

The researchers linked these changes to the Antarctic Circumpolar Current (ACC) and Antarctic icebergs. Prior to the MBE, Antarctica discharged more icebergs than today. A stronger ACC transported more Antarctic icebergs northward,

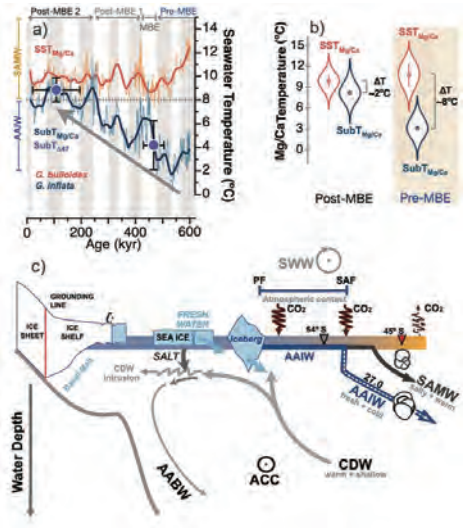

Figure 1. (a) Since the MBE, thermocline temperatures (blue) have steadily increased. (b) Vertical stratification weakened fourfold after the MBE. Because colder water dissolve more CO2, and stratification determines how long that carbon remains sequestered at depth, cooler and more stratified pre-MBE conditions favored greater intermediate-depth CO2 storage. (c) Antarctic iceberg meltwater freshened surface waters, shifting AAIW formation northward and expanding its exposure to the atmosphere, thereby enhancing CO2 uptake.

Click or scan the QR code to read the full article published in *Science Advances*.

supplying cold freshwater to intermediate-water formation zones. After the MBE, a southward shift in Southern Hemisphere westerly winds reduced iceberg transport and freshwater input, leading to warmer intermediate waters.

The findings highlight the previously underestimated role of intermediate ocean waters in Earth's carbon cycle and suggest that ongoing Antarctic ice loss today could weaken the ocean's ability to store carbon, potentially accelerating future global warming.

Figure 1. (a) Since the MBE, thermocline temperatures (blue) have steadily increased. (b) Vertical stratification weakened fourfold after the MBE. Because colder water dissolve more CO2, and stratification determines how long that carbon remains sequestered at depth, cooler and more stratified pre-MBE conditions favored greater intermediate-depth CO2 storage. (c) Antarctic iceberg meltwater freshened surface waters, shifting AAIW formation northward and expanding its exposure to the atmosphere, thereby enhancing CO2 uptake.

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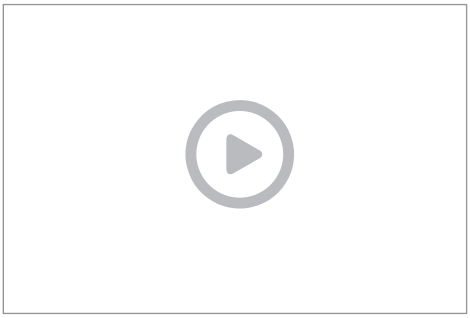
ACHIEVEMENTS

Backpack-Sized Biodiesel System Offers New Model for Energy Resilience

The "Helix Wire Liquid-Liquid Phase Separator" system.

As global energy instability intensifies, researchers at National Taiwan University have developed a portable biodiesel fuel production system compact enough to fit inside a backpack — a breakthrough that could significantly accelerate emergency energy access in disaster zones and remote regions.

Led by Prof. Ya-Yu Chiang at National Taiwan University's (NTU) Department of Mechanical Engineering, the research team created what they describe as an "Energy Espresso Machine": a rapid-deployment system capable of producing high-quality biodiesel from waste oil and non-edible crops. The project, spotlighted as the cover story of Green Chemistry in November 2025, was developed in collaboration with Prof. Yi-Chun Chen's team at National Chung Hsing University (NCHU) and Prof. Penjit Srinophakun's team at Kasetsart University (KU) in Thailand.



Introducing the Portable Fuel-Power Backpack.

The heart of the technology is the world's first "Helix Wire Liquid-Liquid Phase Separator," which enables continuous purification of viscous liquids in micro-scale environments. Using precise Laplace pressure control, the system produces a biodiesel yield of 91.14 percent, with fuel quality surpassing Taiwan's CNS 15072 standards and compatible with existing diesel engines.

Sustainability is hardcoded into the system's design. Detailed Life Cycle Assessments (LCA) demonstrate that this continuous-flow process conserves 35 percent more water and maintains a significantly lower carbon footprint than conventional batch manufacturing methods. In partnership with NCHU, the researchers also converted crude glycerin byproducts into flexible polyurethane foam, further advancing the circular economy approach.

Prof. Chiang remarked that the system was designed to strengthen decentralized energy resilience, particularly for off-grid communities, remote islands, and emergency response scenarios where fuel access may be disrupted.

The demonstration of a portable Fuel-Power Backpack system.

Click or scan the QR code to read the full article in *Green Chemistry*.

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TEACHING & LEARNING

A Nobel Laureate Explores the Quiet Revolution of "Click Chemistry"—and Why It Matters Now

When Morten P. Meldal participated in pioneering the path to "click chemistry," he did not simply identify a new category of reactions; he changed the way chemists think.

In his address at National Taiwan University on January 26, 2026, the Danish Nobel laureate—recipient of the 2022 Nobel Prize in Chemistry—characterized his work as not just a technical breakthrough alone, but as part of a broader intellectual shift. His lecture, "*Chemistry for a Sustainable World — Everything Is Chemistry and How That Influences Our Choices,*" unveiled how reimagining the logic of chemical design could reshape science itself—and, ultimately, the future of the planet.

Click chemistry, he observed, is built on a deceptively simple foundation: reactions that are fast, reliable, and precise—"like snapping together the pieces of a puzzle."

Morten P. Meldal, recipient of the 2022 Nobel Prize in Chemistry and Professor of Chemistry at the University of Copenhagen.

By favoring efficiency, mild conditions, and selectivity, such reactions reduce waste, conserve energy, and render chemical processes more predictable. In an era defined by environmental strain, those qualities are not merely desirable; they are absolutely essential.

But the deeper impact of click chemistry, Meldal suggested, lies in how it frees the scientific imagination. When reactions become dependable—when they behave less like fragile isolated experiments and more like modular building blocks—researchers no longer need to concentrate on the intricacies of chemical synthesis. Instead, they can shift their attention to larger, more complex—and more promising-- challenges: designing targeted medicines, improving diagnostic tools, engineering intelligent materials. What emerges is not just a faster science, but a different one heralding a paradigm shift.

Chemistry at the Center of Everything

Meldal maintained that modern chemistry can no longer be understood in isolation. In a world grappling with climate change, energy transitions, and post-pandemic recovery, the discipline has become deeply intertwined with physics, biology, medicine, engineering and environmental science.

Together, these fields form what he described as a dynamic and interdependent network of knowledge—one in which advances in one domain ripple across others.

The Role of Education in an Uncertain World

Yet despite the promise of such scientific interconnection and innovation, Meldal turned his attention to a more urgent concern: how societies prepare for the future. “The only real way to prepare for global challenges is through education,” he said.

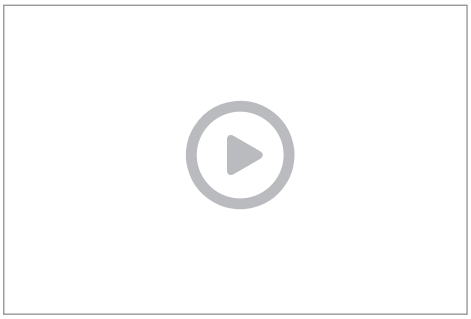
He warned of what he called a growing “autocratic trend” in parts of the world—an increasing concentration of power that, in his view, threatens not only political systems but also the capacity to solve complex global problems. Scientific literacy, he argued, is a critical safeguard.

Education, he emphasized, must begin early—and it must be relatable and intuitive for the students. Rather than teaching bookish abstract theory, he advocated for teaching fundamental principles through everyday experiences: demonstrating how water molecules behave, for example, to help children grasp the science behind floods and climate change. Emerging technologies, including artificial intelligence, could play a transformative role in this effort by making invisible processes visible and translating knowledge across languages and contexts. Ideas that once were difficult to communicate, he suggested, can now be rendered immediate and accessible to young students.

In Meldal’s informed view, chemistry is not merely a discipline; it is a way of seeing—and it charts a way of choosing. In a world facing increasingly complex challenges, those choices may prove as consequential as the reactions themselves.

Prof. Meldal presenting his lecture to NTU faculty and students, as well as more than 100 high school students.

NTU President Wen-Chang Chen (right) presenting the Raymond Soong Chair Professorship trophy to Prof. Meldal (left).



Highlights from Prof. Morten P. Meldal’s lecture, “Chemistry for a Sustainable World — Everything Is Chemistry and How That Influences Our Choices.”

TEACHING & LEARNING

A Nobel Laureate Explores the Brain's "GPS"—and What It May Reveal About Alzheimer's

On February 9, 2026, May-Britt Moser addressed her audience at National Taiwan University on a profoundly complex and deeply human concern: how we find our way. How we find our way, not just through cities or country landscapes, but through labyrinth of memory itself.

Moser, the Norwegian neuroscientist who shared the 2014 Nobel Prize in Physiology or Medicine, presented her keynote lecture on "The Brain's Navigation and Memory Systems and Their Relevance to Alzheimer's Disease." A professor at the Norwegian University of Science and Technology (NTNU) and the founding director of the globally renowned Kavli Institute for Systems Neuroscience, Moser is most well-known for discovering "grid cells." These are neurons which form an internal coordinate system in the brain, allowing humans and animals to navigate space. Often characterized as the brain's built-in GPS, these neural coordinate systems map location through a strikingly geometric pattern of activity, anchoring our sense of place and direction.

May-Britt Moser, recipient of the 2014 Nobel Prize in Physiology or Medicine and Professor at the Norwegian University of Science and Technology (NTNU).

In her lecture, Moser traced the implications of that discovery far beyond spatial navigation, focusing on the brain's spatial system's interconnection with memory—and how understanding its breakdown may offer early clues to one of the most devastating neurodegenerative diseases.

Where Navigation Meets Memory

Grid cells reside in the entorhinal cortex, a region of the brain that serves as a gateway between sensory input and memory formation. It is also one of the first areas affected in Alzheimer's disease.

This overlap, Moser explained, is not coincidental.

When the entorhinal cortex begins to deteriorate, the brain's ability to construct spatial maps is compromised. The result is often subtle at first: occasional disorientation, a tendency to get lost, a fading sense of direction. These are among the earliest and most recognizable symptoms of Alzheimer's—a disease typically associated with memory loss, but one that may in fact commence with the loss of spatial awareness.

Understanding how grid cells function, Moser suggested, may thus offer a pathway toward earlier diagnosis—and, eventually, more targeted and potentially efficacious treatments.

But, the implications go further still.

The Brain's Hidden Algorithm

In recent years, Moser's research has expanded to investigate how the brain integrates not just place, but also time and experience—how it weaves together where we are, when events occur, and what they mean, into coherent memories.

At its core, she argues, the challenge is to understand the brain's underlying "algorithm": the rules by which neural activity becomes coordinated perception, memory, and thought.

Without that understanding, she cautioned, efforts to treat neurological disease risk remaining imprecise.

"Only when we truly understand how the brain works," she has often emphasized, "can we design therapies that are both accurate and effective."

Beyond the Laboratory

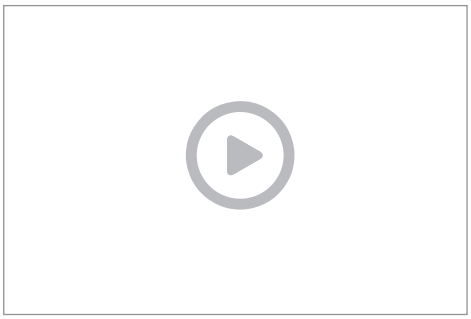
Moser's visit to NTU extended beyond the lecture hall.

At NTU's Green Health Research Center, she met with researchers exploring how neuroscience might inform the design of physical environments. Their discussions focused on integrating insights from brain science into the HEALS Design framework, an emerging approach that harnesses architecture, health, and technology.

Among the possibilities: immersive environments using virtual reality and 360-degree simulation to create spaces that support cognitive function and well-being—particularly for aging populations.

Prof. Moser emphasizing the importance of fostering a psychologically safe and supportive research environment—one in which students feel free to question, explore, and learn without fear of failure in panel discussion.

NTU President Wen-Chang Chen (right) presenting the Raymond Soong Chair Professorship trophy to Prof. Moser (left).



Highlights from Prof. May-Britt Moser's public lecture, "The Brain's Navigation and Memory System and Its Relevance to Alzheimer's Disease."

The idea reflects a broader shift in scientific thinking: the boundaries between disciplines are becoming less rigid and more porous, and solutions to complex problems—from dementia to urban health—may emerge at their intersections.

For Moser, the journey from fundamental discovery to real-world application underscores a larger point.

The most transformative advances, she suggests, often begin with curiosity-driven targeted research—questions about how the brain maps space, how cells communicate, how memory is formed. Only later do their implications unfold and interconnect, reshaping how we understand disease, treatment and, ultimately, ourselves.

In that sense, the brain's internal GPS is more than a navigational tool.

It is a window into how we make sense of the world—and what happens when that sense begins to slip away.

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TEACHING & LEARNING

From Atomic Structures to Molecular Medicine: Nobel Laureate Joachim Frank Introduces the Technology Transforming Modern Drug Discovery

After receiving his doctorate from the Technical University of Munich, Prof. Joachim Frank moved to the United States for postdoctoral research, where his work at NASA's Jet Propulsion Laboratory (JPL) inspired the development of SPIDER, a landmark image-processing system for cryo-electron microscopy.

When the COVID-19 pandemic swept across the globe, scientists redoubled their efforts, racing not only against the virus, but against time itself.

One of the most decisive tools in that race, Nobel laureate Joachim Frank informed his audience at National Taiwan University on May 6, was cryo-electron microscopy — a technology capable of revealing the architecture of life at near-atomic resolution.

In his lecture titled "*CCryo-electron Microscopy, A New Foundation for Molecular Medicine and Drug Design.*" Frank traced how a once highly specialized imaging

NTU President Wen-Chang Chen (right) presenting the Raymond Soong Chair Professorship trophy to Prof. Joachim Frank (left).

method has evolved into one of the definitive scientific instruments of modern medicine. During the pandemic, he explained, cryo-EM enabled researchers to rapidly visualize the structure of the coronavirus spike protein at a speed unattainable using traditional X-ray crystallography, accelerating both vaccine development and the identification of neutralizing antibodies.

Frank, a professor at Columbia University and a member of both the U.S. National Academy of Sciences and the American Academy of Arts and Sciences, shared the 2017 Nobel Prize in Chemistry with Jacques Dubochet and Richard Henderson for pioneering advances in cryo-electron microscopy.

Prof. Frank noted that cryo-electron microscopy has become an indispensable tool in modern drug discovery and life science research, playing a critical role in the fight against cancer, cardiovascular disease and global pandemics.

Capturing Life in Motion

At the heart of Frank's lecture was a larger shift in modern biology: the transition from static structural analysis to what he described as a truly dynamic understanding of life.

Traditional structural biology often depended on isolating molecules in vitro and crystallizing them before study. But living systems, Frank noted, are never motionless. Proteins, ribosomes and cellular complexes operate like microscopic machines, constantly changing shape as they carry out biological functions.

Group photo following the lecture.

To understand those processes, scientists have needed a tool capable not only of imaging molecules, but of capturing them in motion. Cryo-electron microscopy has answered precisely that call.

Highlights of Prof. Joachim Frank's public lecture, "Cryo-electron Microscopy, A New Foundation for Molecular Medicine and Drug Design."

The Algorithm That Changed Structural Biology

A major breakthrough came through Frank's development of "SPIDER," a pioneering image-processing system that has transformed the field.

The software reconstructs thousands of noisy two-dimensional electron microscope images into highly accurate three-dimensional molecular models. The achievement overcame one of the central obstacles in electron microscopy: biological samples are easily damaged by electron beams.

Unlike X-ray crystallography — which often requires years of effort to grow high-quality crystals — cryo-EM allows scientists to observe biomolecules in conditions that closely resemble their natural physiological state. For researchers studying ribosomes, viral infection pathways or drug-binding mechanisms, the technology has opened an entirely new visual frontier.

Frank explained that the arrival of high-voltage 300 kV electron microscopes has advanced the technology even further, enabling structural analysis at near-atomic resolution and fundamentally reshaping experimental biology.

Today, scientists can observe the dynamic behavior of ribosomes and protein complexes in real time, extending research into realms of molecular motion hitherto unimaginable using classical crystallography.

A New Compass for Precision Medicine

The implications for medicine are profound. Cryo-EM now allows researchers to visualize how small-molecule drugs bind to cancer-related proteins, analyze the dynamic conformations of ion channels inside heart muscle cells, as well as design therapeutics with unprecedented precision.

In concluding, Frank described cryo-electron microscopy not simply as an imaging technology, but as one of the foundational instruments of precision medicine — a tool that is rapidly reshaping research on cancer, cardiovascular disease and emergent infectious threats.

During the question-and-answer session, Frank expressed hearty admiration for the depth of the questions raised by NTU students and encouraged the young researchers to study widely and cultivate their interdisciplinary thinking. “The future breakthroughs,” he insisted, “will come from people who can move seamlessly between physics, computational science and biology.”

For Frank, the next frontier of life science will belong not to a single discipline, but to those capable of connecting multiple disciplines.

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TEACHING & LEARNING

Academician James C. Liao Explores the Future of Technology and Humanity Through the Lens of Evolution

Academician James C. Liao delivers his lecture, "Future Society: An Evolutionary Perspective on Technology and the Humanities," exploring the impact of rapid technological change, the essential role of the humanities, and possible futures through the lens of evolution.

On March 6, 2026, National Taiwan University welcomed back distinguished alumnus Academician James C. Liao, a world-renowned pioneer in metabolic engineering and synthetic biology and former President of Academia Sinica (2016–2026), for a Royal Palm Lecture titled *"Future Society: An Evolutionary Perspective on Technology and the Humanities."*

Academician James C. Liao, former President of Academia Sinica (2016–2026), is a distinguished NTU alumnus (B.S. in Chemical Engineering, Class of 1980).

Drawing on the concept of evolution, Liao offered a compelling framework for understanding a world shaped by accelerating technological change.

The Limits of Prediction

Liao began with a simple observation: the future cannot be predicted with precision.

Although societies often rely on historical experience or computational models to forecast what lies ahead, he explained that the principles of chaos theory remind us that even tiny initial differences can be amplified in complex systems, making long-term prediction inherently uncertain.

Rather than attempting to predict the future, Liao proposed understanding it through the lens of evolution.

Technological and social change, he argued, resembles biological evolution. New technologies enter existing systems much like invasive species, reshaping entire ecosystems. Organizations that fail to adapt to disruptive innovation risk becoming obsolete.

Information technology evolves especially rapidly because, unlike matter or energy, information is not constrained by conservation laws. As a result, its rate of evolution far exceeds that of biological systems.

NTU President Wen-Chang Chen (left) presents the Royal Palm Lecture commemorative award to Academician James C. Liao (right).

Academician James C. Liao's thought-provoking and accessible lecture prompted lively discussion and active audience participation.

Artificial Intelligence as Accelerated Evolution

Artificial intelligence, Liao said, represents perhaps the clearest example of this process.

Through reinforcement learning, AI systems undergo a form of accelerated evolution—continuously learning, adapting, and optimizing at extraordinary speed. As intelligent machines become increasingly autonomous, he argued, the humanities will become more—not less—essential.

He urged scholars to broaden the traditional scope of the humanities beyond the interactions between humans and nature. Future scholarship, he suggested, must also examine the relationships among humans, AI systems, the natural world, and the increasingly complex interactions that connect them.

Critical Thinking in an Age of Transformation

Concluding his lecture, Liao encouraged students and researchers to cultivate intellectual independence in an era of rapid change.

He urged the audience not to accept authority unquestioningly, but instead to challenge conventional wisdom, seek evidence, filter out misinformation, and pursue research that addresses problems of genuine societal importance.

His message underscored a broader truth: as technological change accelerates, society will increasingly depend not only on scientific innovation, but also on the critical thinking, ethical judgment, and human values that guide its application.

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TEACHING & LEARNING

Learning From the Top: D-School Launches Executive-Led Internship Program

Partner companies join the College of Design and Innovation (Stanley Wang D-School), National Taiwan University to nurture innovative, interdisciplinary talents at NTU.

The College of Design and Innovation (Stanley Wang D-School), National Taiwan University (NTU) has initiated a new kind of internship—one that brings students face to face not just with company organizations, but with the people who lead them.

President Wen-Chang Chen expressing his gratitude to participating companies and encouraging students to face challenges with courage.

Launched on March 6, 2026, the program—"Learn from CEOs & Chairpersons | NTU Elite Mentorship Internship Program"—matches selected students with senior executives, offering them rare access to real-world decision-making at the highest corporate level. For university leadership, this initiative reflects a new, broader vision of education: one that extends beyond humanistic, scientific and technological training to include endurance, resilience, global awareness, and a commitment to the public good.

"NTU students must develop more than professional expertise," declared President Wen-Chang Chen, at the launch event. "They must also cultivate the ability to

endure setbacks and make difficult decisions. This program provides exactly that opportunity—learning in real, high-stakes environments."

A Highly Contested Opportunity

In its inaugural year, the program attracted significant interest. Nineteen companies participated, drawing 186 applicants. Because each student could apply for up to five placements, the program received a total of 466 applications. After a rigorous selection process led by the participating companies, only 30 internship positions were offered—an acceptance rate of just six percent.

The demand, organizers said, reflects a growing appetite among students for experiential learning that goes beyond traditional internships.

From Idea to Initiative

The program was the brain child of Prof. Chung-Jen Chen, Dean of the College of Design and Innovation (Stanley Wang D-School), NTU, who assumed office in October 2025. Encouraged by President Chen to advance both social innovation and industrial innovation, he began reconsidering how students could engage more meaningfully with industry.

The idea was sparked by a moment of missed connection.

Years earlier, one of his students had interned at Hewlett-Packard but never had the opportunity to meet—and learn from—the company's chair, an NTU alumna. For Chen, the gap was revealing. If students could be brought closer to leadership, he hypothesized, their understanding of organizations—and their own potential roles within them—could be transformed and deepened.

He reached out to former students who had since become CEOs, chairpersons, or senior executives. Many agreed to participate, helping to bring the concept to reality.

Becoming "Corporate Doctors"

For students, the program represents both a challenge-- and the opportunity to realign their skill sets according to real-life experiences.

Wen-Rui Qiu, a student in the Trans-disciplinary Bachelor Degree Program at NTU, observed that he does not come from a traditional business school background. Instead, he has also drawn on past experiences in helping others, translating insights from those experiences into an enhanced ability to understand and cope with organizational challenges.

"I hope to become a kind of 'corporate doctor,'" he said—someone who can diagnose problems and help companies find solutions.

Prof. Chung-Jen Chen, Dean of the College of Design and Innovation (Stanley Wang D-School), thanking partner companies for actively advancing CSR and ESG commitments through concrete support for NTU.

Interns and business leaders pause for a group photo while engaging in lively exchanges.

"Learn from CEOs & Chairpersons | NTU Elite Mentorship Internship Program" webpage.

Bridging Campus and Industry

Following the launch ceremony, students and executives gathered for extended conversations, marking the beginning of what organizers hope will blossom in sustained multiple mentorships and collaborations.

For Dean Chen, the program's purpose is clear: bring students into direct contact with the realities of leadership while helping companies connect and work with emerging talents.

"We want students to step outside the classroom and witness how decisions are made in industry," he said. "At the same time, this will allow organizations to engage more closely with the kind of talents they need."

He also framed the initiative as part of a broader commitment by participating companies to social responsibility—an expression, he said, of both corporate social responsibility and environmental, social and governance principles in action.

In an era when the boundaries between education and industry are increasingly porous and fluid, NTU's new program suggests a simple but powerful idea: the most valuable lessons may come not only from what students' study at school, but from whom they learn alongside.

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TEACHING & LEARNING

Hope, Knowledge, and Society: A New Chapter for SPE

SPE faculty members and students dialoguing and building community at Fall 2025 Welcome Mixer, hosted by the SPE administration.

The heart of SPE is expressed by its Latin motto: SPE Scientiae, SPE Civitatis. "Spe" means hope in Latin, but it is also the School's acronym, reflecting its dual mission to advance knowledge (Scientiae) and serve society (Civitatis). At the School of Political Science and Economics, this mission is carried out course by course and partnership by partnership, forming a new academic home for students interested to learn how power, finance, institutions, and leadership interactively shape the modern world.

The School of Political Science and Economics on NTU's Xuzhou Campus.

Established in September 2024, SPE is one of NTU's newest schools and among its most international. Its three academic fields—political economy, finance, and leadership and management—are arranged not as discrete disciplines, but rather as trifocal lenses through which to discern multifaceted global transformations. In SPE classrooms, discussions of financial markets, geopolitical conflict, democratic governance, technological disruption, and organizational leadership often converge within the same conversation.

The School's inaugural year has already been marked by rapid development. SPE ratified its foundational academic regulations, signed 15 international partnership agreements, appointed six international scholars as full-time faculty members, and admitted 51 master's students into its two graduate programs in Political Economy and Finance. With the launch of the Leadership and Management Program in 2026, enrollment is expected to surpass 100 full-time graduate students.

What distinguishes SPE, however, is not only its institutional design, but also the academic community it is bringing together. SPE students from Taiwan and around the world study together in an English-taught environment where differences in nationality, academic training, and professional experience become part of the learning process itself. Expanding partnerships across North America, Europe, Australia, and Asia are expected to create additional opportunities for establishing exchange programs, dual degrees, collaborative research, and global internships. At the same time, partnerships with industry connect students to real-world challenges facing businesses, public institutions, and society at large.

SPE is now preparing for its next phase of growth at NTU's Xuzhou Campus. The relocation from the Main Campus will situate the School within a historic urban setting while providing fresh new space for academic programs, interdisciplinary research communities, and broader public engagement.

Digital rendering of the SPE Administration Building.

3D simulation of the SPE Teaching and Learning Complex.

SPE representatives participating in the 2025 Taiwan Higher Education Fair in Jakarta and Bandung, Indonesia (August 2025).

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PEOPLE

“Conversations with Nobel”: NTU Exhibition Explores the Enduring Spirit Behind the Nobel Prize

To deepen Taiwan’s engagement with the global academic community, National Taiwan University and the Swedish Representative Office in Taiwan jointly launched the special exhibition “*Conversations with Nobel: Echoes and Origins of the Nobel Prize*” on May 4 at NTU’s General Building of Liberal Education.

NTU President Wen-Chang Chen delivering remarks at the opening ceremony.

More than a celebration of scientific achievement, the exhibition explores the deeper meaning of the Nobel Prize: its power to inspire future generations to pursue knowledge, challenge conventions, and aspire to innovate transformative ideas.

At the opening ceremony, NTU President Wen-Chang Chen emphasized that the significance of the Nobel laureates lies not just in the honor itself, but in their enduring contributions to human civilization. Breakthrough discoveries, he noted, are often the result of years of persistence and the courage to question established

paradigms. He encouraged students and faculty to engage with the Nobel lectures and exhibition not simply as historical retrospectives, but as inspirations for continued intellectual inquiry and academic ambition.

Vice Minister of Education Kuo-Wei Liu highlighted the longstanding educational ties between Taiwan and Sweden, noting that the two sides have signed more than 110 academic agreements and continue to support active student exchanges. He expressed the hope that Taiwan and Swedish universities would further expand their collaborative scholarship and research programs to nurture future innovators.

James C. Liao, President of Academia Sinica and co-chair of the Taiwan Bridges Program, reflected on the relationship between science and the humanities. Scientific progress, he said, depends on a willingness to question authority and embrace experimentation without fear of failure. Nonetheless, while science drives innovation, it is the humanities that provide ethical direction and social meaning. The two, he argued, must remain in dialogue and inseparable in addressing the challenges of the modern era.

Helena Reitberger, Representative of Sweden to Taiwan, shared a moving story from 2023, when she accompanied Nobel Prize-winning author Jon Fosse on a visit to an underserved high school. Watching students respond to the ideals embodied by the Nobel Prize, she said, reminded her that its greatest power lies not in prestige, but in its ability to awaken potential and inspire aspiration among young people.

“That,” she said, “is the true power of the Nobel Prize.”

The exhibition features three thematic sections: a Swedish Nobel exhibition area, the Taiwan Bridges Program, and NTU’s Nobel Laureate Lecture Series. Through archival footage, interactive installations and materials drawn from both Sweden and Taiwan, the exhibition invites visitors into a dialogue that spans generations, disciplines, and cultures.

Organizers intend that the exhibition will serve not only as a tribute to Nobel history, but also as a living platform for reflection on the values of curiosity, perseverance and intellectual courage that continue to shape the pursuit of knowledge today.

Vice Minister of Education Kuo-Wei Liu expressing his hope that the exhibition will inspire deeper and longer-term academic collaboration between Taiwan and Sweden.

Academia Sinica President James C. Liao encouraging young scholars, noting that Nobel-level discoveries often begin with curiosity and the courage to question what is taken for grante

Helena Reitberger, Representative of Sweden to Taiwan, highlighting the elegance of Nobel Week in Sweden—from the laureates delivering lectures and participating in educational outreach, to receiving medals from the King at the Stockholm Concert Hall and attending the world-renowned Nobel Banquet with the royal family—, offering guests a deeper appreciation of the tradition behind the Nobel Prize.

Representatives from both sides exchange commemorative gifts.

Group photo of distinguished guests attending the opening ceremony.

PEOPLE

At Career Expo, the Future of Work Starts to Take Shape

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Opening Ceremony: "GenCareer—Lead Beyond AI: Cross-Disciplinary AI Empowerment × Humanistic Co-Creation Without Boundaries."

On March 7, National Taiwan University opened the doors to what is now the largest campus recruitment fair in Taiwan—an event that runs less like a typical job market and more like a preview of the future of work.

Students gathering at the Main Exhibition Hall, VISION 2026 NTU Career Fair.

Branded "*VISION 2026," this year's expo theme-- "GenCareer: Lead Beyond A.I."*—reflected a world where artificial intelligence is no longer a distant force but an everyday collaborator. The scale was striking: more than 347 companies, domestic and international, occupied 450 booths, offering upwards of 40,000 job opportunities. More telling, however, was the shift in demand. Over 70 percent of participating employers were recruiting for interdisciplinary positions, reflecting a labor market increasingly defined not by the applicants' having a single expertise, but by their experience and ability at bridging fields.

Where Technology Meets Culture

The opening ceremony delivered a symbolic response to that shift.

To perform, "*Rhythms Without Boundaries, Careers in Motion,*" a traditional percussion ensemble—with roots in Malaysia's cultural heritage of the 24 Festive Drums—mounted the stage together with a team of students from NTU's Department of Mechanical Engineering. Together, they performed with robotic arms, blending human rhythms and machine precision into a single choreography.

The message was clear: the future will not be shaped by technology alone, but by how successfully it intersects with human culture, creativity, and expression.

VISION 2026 NTU Career Fair Service Team.

Lessons From Those Who Have Built It

Beyond the exhibition floor, the university's Career Talks series attracted students eager to understand how that future might unfold in jobs and professions.

Three prominent alumni—construction entrepreneur Chieh-Yeh Hsieh, telecom executive Chih-Chen Lin, and business leader Yun-Fan Hsieh—shared their journeys from campus to industry, offering insights that moved beyond conventional career advice. Their conversations focused on adaptability, cross-disciplinary thinking, and the necessity of anticipating change rather than reacting to it.

In one of the most anticipated sessions, Lin discussed "the ten things to do before launching your career," urging students to expand their horizons early and position themselves not just for their first job, but for a lifetime of reinvention.

A Platform for What Comes Next

For NTU, the event is more than a job recruitment fair. It is an evolving platform—one that reflects how the university sees its role in a rapidly shifting world.

As artificial intelligence continues to reshape industries, the expo has become a space where technology and the humanities are not treated as opposing forces, but as complementary ones. It is here that students encounter not just employers, but ideas about what it means to build a meaningful career in an age of uncertainty.

With its centennial rapidly approaching in 2028, NTU has framed this gathering as part of a broader commitment: to cultivate talent that is not only technically capable, but globally aware, ethically grounded, and able to navigate complexity.

In that sense, the fair is less about filling positions than about preparing people—for a future that, like the performance that opened the day, will require ingenuity, precision, and imagination.

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Campus Comes Alive at Club Fair

NTU President and university administrators posing for a group photo with the Malaysian Student Association.

Each spring, as brightly colored azaleas bloom all around the National Taiwan University campus, something else comes into full view: the collective energy of student life.

President Chen and Secretary-General visiting members of the Floral Design Club.

This year's Azalea Festival, themed "As Steam Flows with Ancient Water, Youthful Dreams Dance with Azalea Flowers," opened in early March, sparking a familiar sense of anticipation. For many students, it is more than an annual event—it is a shared memory in the making. For visiting high school students, it often serves as their first glimpse into what life at the university might become.

The heart of the festival was the Student Club Fair, a sprawling, open-air exhibition of campus culture. A total of 152 booths lined the grounds, representing not only administrative units—such as the university press, health center, and campus safety office—but also a broad spectrum of student organizations in eight main categories.

This year, the event organizers took a further step toward inclusivity by adding English names to all the booth signage, making it easier for international students

and visitors to navigate the event. The result was a more accessible, more globally attuned ambiance—one that reflected the increasingly international character of the campus.

A Marketplace of Ideas—and Identities

Under clear skies, crowds moved steadily through the fairgrounds. High school students, local families, and NTU undergraduates congregated at booths where club members, lively and eager, introduced their club's activities and shared their personal experiences.

What emerged was less a recruitment event than a vivid tableau vivant of student life.

Visitors encountered everything from campus publications and creative merchandise to orientation programs, international exchange opportunities, and cultural performances. More importantly, they were invited to join in conversations—about interests, values, and the many ways students shape their university experience beyond the classroom.

For prospective students, the fair offered something difficult to capture in brochures: a sense of belonging, of possibility, of the diverse paths that could unfold in student lives within the same institution.

Learning Beyond the Classroom

President Wen-Chang Chen and Dean of Student Affairs Shi-Wei Chu visited the booths, offering encouragement and acknowledging the role of student organizations in campus life.

Their presence underscored a broader message—one echoed increasingly by employers.

In recent years, industry leaders have pointed to student club experience as a critical training ground for leadership. Skills learned and developed outside formal coursework—teamwork, event planning, communication, and coordination—often prove essential in the workplace.

The university, in turn, has encouraged students to engage deeply in these activities, even to take on leadership roles, not simply as extracurricular pursuits, but as integral components of personal and professional development.

A First Step Into the Future

By the end of the day, the fair had accomplished much more than showcase student organizations.
It had created a space where curiosity met opportunity—where high school visitors could imagine their future college life, and current students could rediscover the richness of their present.

University leaders interacting with students from the Juggling Club.

Veterinary Cultural Exchange Club.

Water Service Team.

NTU Press booth.

In that sense, the Club Fair is not just an event. It is an invitation: to explore, to participate, and to begin shaping a path that extends far beyond the university gates.

Crowds visit diverse booths along Palm Avenue during the event.

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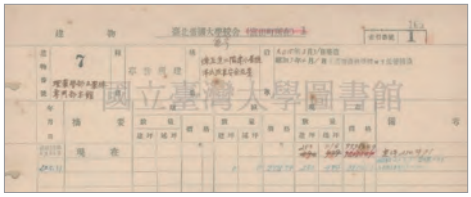
Administration Building Marks a Century at the Heart of Taiwan's Academic History

The Administrative Building in 1927 (Showa 2). Image reproduced from History of the Yobokukai: The Development of Higher Agricultural and Forestry Education in Taiwan.

For 100 years, the Administration Building at National Taiwan University has stood as the heart of the university's evolving history—witness to colonial rule, war, political transformation, and the rise of modern higher education in Taiwan.

Completed on March 31, 1926, the building was originally constructed as the "Main Building" of Taihoku Higher School of Agriculture and Forestry under the Japanese colonial government, an institution that later became part of today's National Chung Hsing University. At the time, the structure served as the school's administrative hub and was connected, on the east side, by corridors to surrounding academic buildings, including classrooms for chemistry, forestry and agriculture.



Architectural record card for the "Main Building of the Faculty of Science and Agriculture and the College of Agriculture and Forestry," from the Taihoku Imperial University Architectural Floor Plan Database (Archive No. ntul-uh0501165_0001, courtesy of NTU Library Special Collections Division).

When Taihoku Imperial University—the predecessor of National Taiwan University— was established in 1928, the building was repurposed as the main facility for the Faculty of Science and Agriculture and the College of Agriculture and Forestry.

Following World War II and the founding of National Taiwan University in 1945, the building continued to function as the university's administrative center, providing offices for the university and several colleges. Though once referred to simply as the "Office Building," it is now known as the Administration Building, a name familiar to generations of NTU students, faculty and alumni.

Archival records preserved by NTU Library's Special Collections Division, including architectural documentation from the Taihoku Imperial University era, confirm the building's completion date—making this past March its official centennial.

During this century of transformation, the Administration Building has remained more than a physical structure. It has quietly reflected the larger story of Taiwan itself: from Japanese colonial rule and the establishment of modern higher education, through wartime upheaval and postwar political transition, to the vibrant democratic campus of today.

As NTU approaches its centennial in 2028, the university hopes the historic building will continue to stand not only as an architectural landmark, but also as a living witness to the institution's next chapter.

The main entrance of the Administrative Building today.

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NTU Commencement 2026: Graduates Called to Lead with Resilience, Purpose, and Compassion

NTU President Wen-Chang Chen encouraging graduates to spread their wings and pursue their aspirations with confidence and purpose.

National Taiwan University celebrated its 2026 Commencement Ceremony on May 30, sending off a new generation of graduates with an inspiring call for resilience, lifelong learning, and service in a changing and increasingly uncertain world.

NTU Commencement, Academic Year 2025–2026.

Addressing the graduating class, NTU President Wen-Chang Chen stressed the importance of, "*Finding Resilience Across Boundaries in a Changing Era.*" Considering the rapid transformations driven by artificial intelligence and multifaced global changes, he urged graduates to embrace three guiding principles: continuous learning, bold experimentation, and integrity rooted in altruism.

President Chen underscored that while technology advances relentlessly at an unprecedented pace, those uniquely human qualities—including ethical judgment,

empathy, creativity, and social responsibility—will remain irreplaceable. He further encouraged graduates to cultivate resilience through interdisciplinary learning and to view setbacks not as failures, but as opportunities for growth.

"Face vulnerability with honesty," he told students. "Transform your dreams and passions into action."

A Life of Service Beyond Borders

This year's commencement speaker was Tzu-Chun Lin, co-founder and executive director of *Calls Over Ridges*, a Taiwan-based education NGO and social enterprise dedicated to community development in Nepal.

Drawing on years of experience in social entrepreneurship and international development, Lin described his mission of building local capacity and creating organizations capable of thriving independently.

"Life is not a multiple-choice question," he told graduates. "It is an essay question that only you can read, understand, and write for yourself."

He challenged the graduates to use their professional expertise not merely to advance their own careers, but to expand opportunities for others and to share Taiwan's warmth, compassion, and creativity with the world.

Finding the Dreams That Light the Way

Student speaker Chia-Wei Lin of the Department of Law reflected on how NTU's diverse learning environment had broadened her perspective far beyond the boundaries of pure legal studies.

She encouraged her fellow graduates to continue to pursue the dreams that spark their curiosity and enthusiasm.

"Life is too short to abandon the dreams that make your eyes light up," she said.

She urged the graduates to embrace responsibility during pivotal moments, remain kind in their interactions, and strive to leave every place, project, and relationship better than they found it.

From Tanzania to Taiwan—and Back Again

Representing international degree students, Nathan Thadeo Yoashi, a doctoral student in Environmental Engineering from Tanzania, shared his remarkable journey marked by perseverance and service.

Growing up in challenging circumstances, Nathan never gave up on his education. Supported and recommended by renowned primatologist and conservationist Dr. Jane Goodall, he came to Taiwan, where he immersed himself in local life—learning farming techniques from Taiwanese farmers, selling vegetables at traditional markets, and mastering both Mandarin and Taiwanese.

Commencement speaker Tzu-Chun Lin, Co-founder and Executive Director of *Calls Over Ridges*.

Student speaker Chia-Wei Lin of the Department of Law.

International student speaker Nathan Thadeo Yoashi, a doctoral student in the Graduate Institute of Environmental Engineering from the United Republic of Tanzania.

Campus farewell procession celebrating the graduates as they embark on their next journey.

During his time at NTU, Nathan helped establish academic collaborations between NTU and universities in Tanzania. He has since applied his knowledge to address mining-related environmental pollution in his home country while actively supporting educational opportunities for children in his community.

His message to the graduates was simple yet powerful:
"Don't focus on becoming a leader first. Learn how to serve. That is how true influence begins."

A New Commencement Tradition

For the first time, NTU extended its commencement celebration beyond the formal ceremony by hosting a special post-graduation talk featuring the renowned television host, author, and NTU Sociology alumna, Bowie Tsang.

In her presentation, *"Life Treasures for Graduates: A Live Conversation,"* Tsang discussed three lessons she considers essential for navigating life as an adult: redefining self-identity, developing an independent worldview and personal convictions, and transforming life experiences into meaningful contributions.

She urged that in an age increasingly shaped by technology, humanity's greatest strengths remain warmth, direct sensory experience, and the complex relationships that shape personal growth.

Tsang encouraged graduates not only to pursue professional success, but to pursue the deeper achievement of becoming their authentic selves. She also offered a message to parents, urging them to rediscover their own identities and interests after years devoted to raising children.

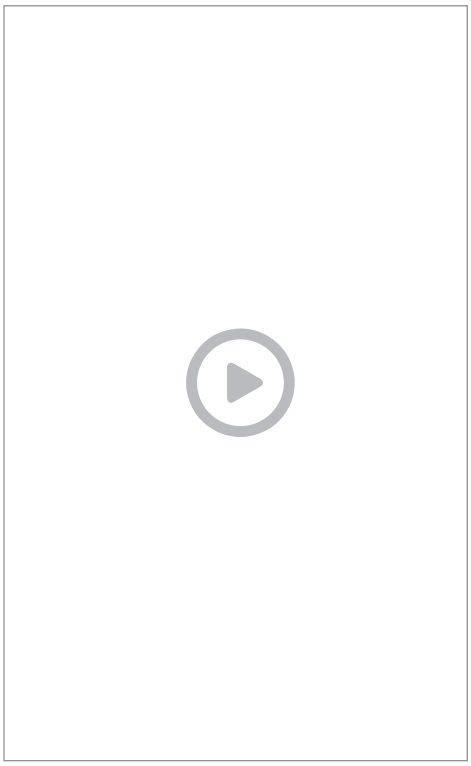
Her final piece of advice was simple but profound:
"Be gentle—with yourself and with the world."

As the graduates crossed the stage and prepared to begin their next life chapters, the ceremony celebrated not only their academic achievements, but also the core values NTU hopes they will embrace and carry forward: curiosity, courage, responsibility, and compassion.

In a rapidly changing world, the university reminded its newest alumni that resilience involves not just adapting to change—more deeply it involves shaping change.

NTU Sociology alumna Bowie Tsang sharing personal insights during her special commencement lecture, "Youth Forum: Between the Echoes."

Executive Vice President Shih-Torng Ding joins Bowie Tsang and participants for a group photo following the event.



Highlights from NTU's 2026 Commencement Ceremony.

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