



# NTU

## HIGHLIGHTS

Leader's Profile

### **New President, New Era**

### **Int'l College Launches Bioagricultural Program**

- NTU to Establish Stronger Ties with Thailand
- Public Art Program Acknowledged by MOC
- Female Athletes Get in the Spotlight



# Contents

## Leader's Profile

01 Focus on President Chung-Ming Kuan: A Propelling Force to Move NTU Towards Its Centennial

## Special Report

05 NTU International College Takes First Step in Cross-Disciplinary Bioagricultural Graduate Program

06 Exceptional Commencement: Special Exhibition on the Early Years of NTU

07 Aiming for Stronger Ties with Thailand: College of Medicine Delegation Visits Chulalongkorn and Mahidol Universities

08 NTU's Public Art Program Awarded Ministry of Culture's Public Art Awards

## Honors

10 NTU Dean of Engineering and CNRS Research Director Awarded 2018 Franco-Taiwanese Scientific Grand Prize

## International Corner

11 Under One Roof: NTU Invited to Attend 2018 Tübingen Family Meeting

12 2018 NTU-UTokyo Conference on Developing a Sustainable Society in East Asia

14 SoNTU: Share Your NTU Spirit!

## Research Achievements

15 Research Proves Potential Bidirectional Interaction between Sperm and Reproductive Tract

## Teaching and Learning

16 *De Rerum Natura*: Understanding the Nature of Things and Conquering the Fear of Death through Epicurean Philosophy

## NTU at a Glance

17 NTU and NTSU Host a Special Exhibit Featuring Female Athletes of the 2018 Asian Games

## Back Cover

18 Huai Su's Cursive Script Invokes the Spirit of Unrestrained Creativity in NTU Library



During the 2019 Taipei International Book Exhibition (TIBE), the National Taiwan University Press co-organized a joint exhibition with Academia Sinica for the first time. "When Academics Converged into a Garden" Introduced Taiwanese academic publications to all readers. At the opening on February 12, NTU President Kuan Chung-Ming took a group photo with the NTU Press staff.

Publisher: Chung-Ming Kuan  
Editorial Consultant: Lin-Lin Ku  
Editor: Hsiao-Chih Sun  
Executive Committee: NTU Secretariat  
Published by National Taiwan University  
Tel: 886-2-3366-2032  
Address: No. 1, Sec. 4, Roosevelt Rd., Taipei 10617, Taiwan (R.O.C.)  
Website: <http://ntuhighlights.ntu.edu.tw/>

# Focus on President Chung-Ming Kuan: A Propelling Force to Move NTU Towards Its Centennial

NTU's motto, "Integrity, Diligence, Fidelity, and Compassion," came into view as we stepped into university president Chung-Ming Kuan's office. Kuan, who took office just over a month ago, stood up to greet us with enthusiasm. It was clear that he couldn't wait to share with us his determination to take the helm and lead the university forward.

Quoting former US President Lyndon B. Johnson, "Yesterday is not ours to recover, but tomorrow is ours to win or to lose" at his inauguration, President Kuan was ready to lead NTU into its 100th year. With "NTU 2028, Marching Towards the Centennial" as a blueprint, Kuan believes that NTU, as Taiwan's oldest and most influential institute of higher education, is committed to bridging the past and the present, and will continue to play a vital leading role in Taiwan's society as it enters a new century.

Kuan first took on the agreements signed between NTU and its partner universities, and found that there is much room for improvement when it comes to execution. The actual number of students and faculty exchanges and academic exchanges are below his expectation. He thinks NTU must consolidate its international competitiveness in the academic sphere, and make sure that it won't be marginalized. By taking advantage of Taiwan's vibrant academic freedom, NTU can achieve its medium to long-term goal of establishing itself as a major academic hub in Asia.

During the interview, President Kuan noted that the number of high school students in Taiwan who have chosen to go abroad for college has increased incrementally. Before 2012, approximately 500 high school students left Taiwan to attend college abroad annually. After 2012, the number increased by 20% every year, and by 2017, over 1,800 high school

graduates chose to attend colleges abroad. For example, 10 percent of the students graduated from Taipei Municipal Jianguo High School apply admissions to the universities in the neighboring Asian countries. Kuan believes that one of NTU's social responsibilities is to retain the best students in Taiwan. To do so, NTU must enhance its global competitiveness so that students will want to continue their higher education in Taiwan.

With regards to "education for the future," Kuan admitted that due to uncertain national economic development policies, the younger generation often feel lost and puzzled after graduation. Most of them are less certain about where to position themselves in the society. The top priority of NTU, therefore, is to provide students with





an education that will equip them with the know-how, resources, and accountability that will enable them to face the rapidly changing world.

“New approaches to education must be adopted,” added Kuan, while citing “Stanford 2025” as an example. Kuan said that NTU must re-examine the content and the form of university education, and explore different possibilities. NTU’s D-School and the Digital Learning Center could serve as a launching pad for innovations in teaching and learning, and open up discussions and dialogue about education for the future. “I believe that if NTU can take the lead in initiating changes in education, other higher education institutions in Taiwan will follow suit. This is one of NTU’s social responsibilities,” Kuan said confidently.

A sense of defeatism has gloomed Taiwan’s academia and industry in recent years. As a result, many people chose to leave Taiwan for greener pastures in Mainland China and in Southeast Asia. When it comes to the retention of talent and human resources, Kuan has a rather unique perspective. He noted that in order to keep the best teachers in Taiwan, the salary structure of university professors must be adjusted. Even though the government has offered more flexible payment plans, they are still based on the number of papers published. He believes that Taiwan must implement major institutional reforms and come up with more flexible evaluation measures that meet the educational needs of the new era. More pluralistic evaluation standards should be established to acknowledge the teaching and research performance of the teachers.

The key to attracting and retaining the best talent, as Kuan stated admittedly, is reasonable compensation. He pledged to do his utmost to raise funds, raise teachers’ wages, and put a stop to the brain drain. Kuan added that NTU will also be more proactive in recruiting top talents.

At the end of the interview, Kuan stressed the importance of university social responsibility (USR). NTU’s faculty and students will be encouraged to dedicate more time and efforts to serving the community and society. Moreover, a USR report will be published every year to inform the general public about how NTU has fulfilled its social responsibilities.

Before we left his office, President Kuan directed our attention to his favorite scroll of calligraphy, on which the words, “The sea is vast and accommodating, the moon waxes and wanes” (大海有真能容之量，明月以不常滿為心) were written as a reminder to him of the importance of pluralism and modesty. As NTU members, we must remind ourselves to remain humble and to keep moving forward, like the waves of the sea.



# 臺灣大學

## Q&A with President Chung-Ming Kuan

Q: What's your favorite spot on campus?

A: The main entrance.

Q: What's your idea of an ideal university environment?

A: An open environment where free discussions can take place sensibly.

Q: What kind of a high school student were you?

A: I was carefree and slothful.

Q: Most painful memory from your school days?

A: Exams! I still have nightmares about exams.

Q: Favorite movies?

A: Too many! But I especially enjoy movies in which the oppressed keep fighting until they win in the end.

Q: Are you into any hobbies or sports?

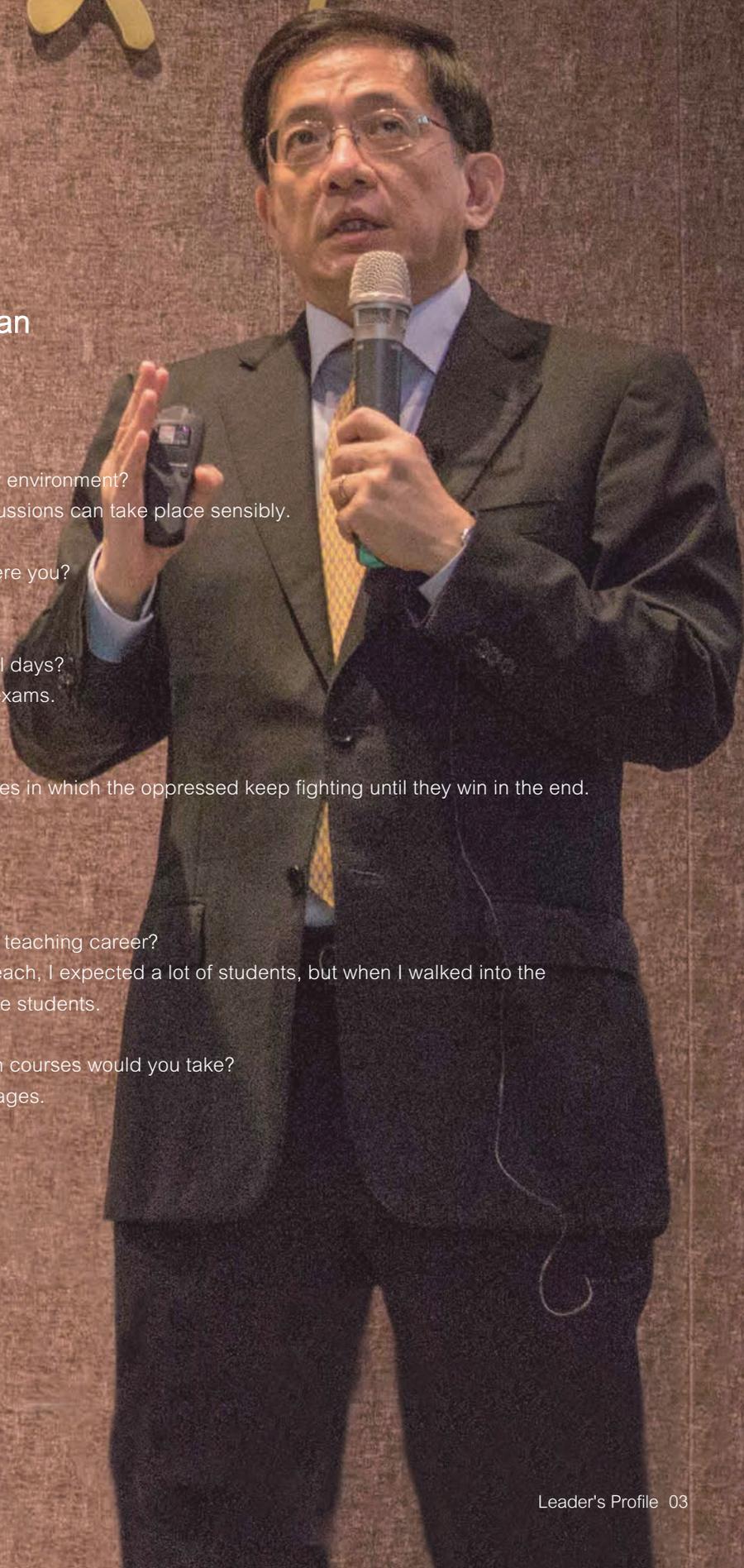
A: Strength training in the gym.

Q: Most unforgettable memory from your teaching career?

A: When I first came back to Taiwan to teach, I expected a lot of students, but when I walked into the classroom, there were only three to five students.

Q: If you could go back to college, which courses would you take?

A: Languages, especially minority languages.





在大地撒下  
學術的種子  
灌溉 發芽  
培育 成長  
有一天……  
學術將成爲一座  
美麗的花園

## More about President Chung-Ming Kuan

Degree: Ph.D. in Economics, University of California, San Diego (1989)

### Current Positions:

- Chair Professor, National Taiwan University (2009-Present)
- Distinguished Professor, Department of Finance, National Taiwan University (2009-Present)
- President, National Taiwan University (2019-Present)

### Experiences:

- Assistant Professor and Associate Professor (with tenure), Department of Economics, University of Illinois, Urbana-Champaign (1989-1996, on leave 1994-1996)
- Professor, Department of Economics, National Taiwan University (1994-1999)
- Director, Social Science Research Center, National Science Council (1999-2001)
- Research Fellow and Distinguished Research Fellow (1999-2009), Director (2001-2007), Institute of Economics, Academia Sinica
- President of the Executive Council, Taiwan Economic Association (2003)
- Founder and President of the Executive Council, Taiwan Econometric Society (2007.11-2012.10, 2015.3-2018.1)
- Director, Center for Research in Econometric Theory and Applications (CRETA), National Taiwan University (2009-2012, 2015-2018.1)
- Minister without Portfolio, Executive Yuan (2012.2-2015.2)
- Minister, Council for Economic Planning and Development, Executive Yuan (2013.2-2014.1)
- Minister, National Development Council (2014.1-2015.2)
- Dean, Institute for Advanced Studies in Humanities and Social Sciences, National Taiwan University (2017-2018.1)

### Honors and Awards:

- Distinguished Research Award, National Science Council, Taiwan (1994-1996, 1996-1998)
- Outstanding Research Award, Foundation for the Advancement of Outstanding Scholarship, Taiwan (1997-2002, 2002-2007)
- Outstanding Teaching Award, National Taiwan University (1999)
- Academic Award, Ministry of Education, Executive Yuan, Taiwan (1999)
- Academician, Academia Sinica, Taiwan (elected 2002)
- Information Science Award, Joint Conference of Information Sciences (2006)
- Fellow, The World Academy of Sciences (TWAS) (elected 2014)
- National Chair Professor, Ministry of Education, Taiwan (2018)

**Research Areas:** Econometrics, Financial Econometric Analysis, Macroeconomic Forecasting, Time Series Analysis

# NTU International College Takes First Step in Cross-Disciplinary Bioagricultural Graduate Program

NTU International College will be the next driver of NTU's internationalization effort. It is aimed to enhance NTU's academic prestige and highlight Taiwan on the world map by building a brand for the school and multiplying the strengths of NTU's 11 existing colleges. The new College will first showcase NTU's distinctive cross-disciplinary graduate programs and then fulfill the school's long-term mission of establishing English-taught bachelor's, master's, and doctoral degree programs.

In its initial phase, the College will focus on the field of bioagriculture, leveraging NTU's formidable strengths and resources to cultivate bioagricultural talents, promote Taiwan's industrial development, and facilitate the internationalization of agricultural techniques to collaborate with other international institutes. The College will integrate academic and industrial resources at NTU to increase Taiwan's influence in the agricultural and biotech industries in Southeast Asia.

NTU ranked 82nd worldwide in the field of agriculture according to the 2018 Performance Ranking of Scientific Papers for World Universities. Among the 19 researchers from Taiwan on the list of Highly Cited Researchers 2018, four were from NTU, two of whom were specialized in bioagriculture. NTU's bioagricultural programs cover a wide range of education, training, and research areas. Currently, NTU has 9 affiliated units, 12 research centers, and an annual number of 610 Industrial-Academic Cooperation Projects related to bioagriculture, which amount to 20% of the school's industrial-academic cooperation projects, indicating NTU's international influence and diversity in the field.

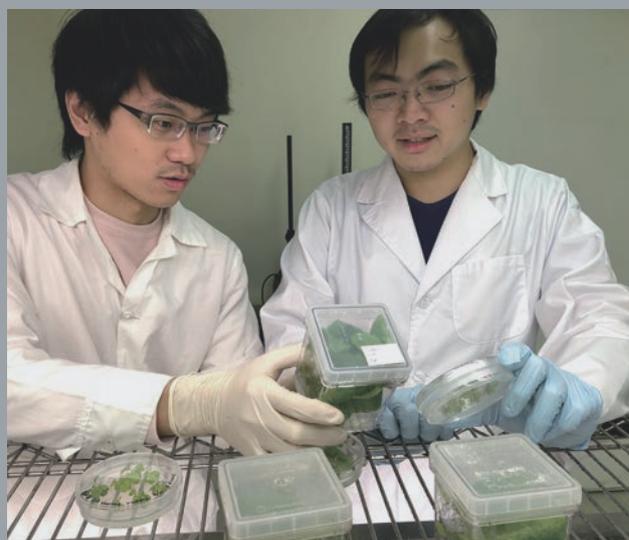
The cross-disciplinary bioagricultural graduate program will have two concentrations: (1) Genome Science and Technology and (2) Smart Engineering for Agriculture and Food Processing. Besides finding solutions to pressing issues, such as climate change, food security, and other global challenges, the program will be aligned

with the nation's policy and develop innovative technologies to promote agricultural advancement. By training cross-disciplinary professionals and enhancing Taiwan's agricultural competitiveness, the program will open up a new era of agriculture.

Besides welcoming students from home and abroad, the program will also target university faculty members and government officials from Southeast Asian countries. This program will offer them access to advanced, cutting-edge knowledge and the basic practical skills of contemporary agriculture. This program will provide the perfect opportunity for students to achieve a higher academic status.

The program's course design places equal emphasis on professional education and practical knowledge. In addition, NTU's College of Bioresources and Agriculture and College of Life Science have collaborated with international research organizations and biotech companies, including the Corporate Synergy Development Center (CSD), Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA), and International Rice Research Institute (IRRI). These collaborations provide students with opportunities to join research projects on an international scale, and offer them a rich platform for accumulating fieldwork experience, exercising their expertise, and expanding their academic horizons.

Graduates from this program will be equipped to assume high-level positions and become college professors, researchers, or innovation researchers in biotech companies. The program is scheduled to begin in the Fall Semester of 2020.



Students focusing on an experiment

# Exceptional Commencement: Special Exhibition on the Early Years of NTU

The Gallery of NTU History launched a special exhibition titled “eXceptional Commencement: The Early Years of National Taiwan University” at Chyun-liu Exhibition Hall on November 15, 2018 to celebrate NTU’s 90th anniversary. The character “粹” *cui* (collection) is the archaic form of the character “萃” *cui* (collection). Since “粹” includes the characters “九” *jiǔ* (nine) and “十” *shí* (ten), the exhibition’s title echoes the theme of NTU’s 90th anniversary.

A permanent exhibition about the milestones of NTU since its establishment as Taihoku Imperial University (TIU) in 1928 is on display at the Gallery of NTU History. This special exhibition, however, details the previously ambiguous school history ranging from TIU’s founding under Japanese rule to its reinstatement as NTU in the early retrocession period.

The exhibition traces the foundation and history of TIU, exploring its preparation and establishment 90 years ago. It presents Taiwanese and Japanese’s points of view when TIU was to become the first university in Taiwan in the 1920s. Besides, the exhibition also introduces Takio Izawa, Taira Shidehara, and Kintaro Ooshima— three key figures who contributed to TIU’s establishment. It also reveals the sources of capital and labor required to build the school, the development of TIU’s academic system, the sources of TIU students, and the first group of NTU-related Taiwanese figures during Japanese rule.

After WWII in 1945, the Nationalist Government dispatched officials to Taiwan to take over TIU and reinstitute the university as NTU. To familiarize visitors with the early years of NTU, the exhibition details the takeover process under the leadership of President Tsung-Lo Lo and the hardships experienced and overcome in the early retrocession period. These include rapid changes of NTU presidency, pivotal contributions made by NTU’s 4th President Ssu-Nien Fu, management team arrangements during times of change, and the sources of faculty members and students after most of the Japanese faculty and all the Japanese students were repatriated.

There are also historic artifacts on display at this exhibition, including early artifacts, documents, and devices donated by academic and administrative units on and off campus to the Gallery of NTU History over the years. These include Ernst Leitz Wetzlar microscopes, teaching aids, munafudas (wooden placards showing buildings’ construction information) left with the Japanese buildings in Taiwan, and the military water bottles and puttees left by students who joined the army during WWII. As these artifacts have been kept in the storage room away from public view, this exhibition provides a rare opportunity for visitors to observe these artifacts of historical significance.

**Opening Hours:** 9:00-17:00, 2018/11/15-2019/9/30 (closed on Tuesdays and National Holidays)

**Venue:** Chyun-liu Exhibition Hall, Gallery of NTU History

**Organizers:** NTU Library, Gallery of NTU History, and NTU Museums





Delegates at Mahidol University's Ramathibodi Hospital

## Aiming for Stronger Ties with Thailand: College of Medicine Delegation Visits Chulalongkorn and Mahidol Universities

The New Southbound Policy is one of the major new policies that the government has been pursuing; hence maintaining a close tie with universities in Southeast Asia is a top priority. Chulalongkorn University and Mahidol University in Thailand are partner universities of NTU. Both have shared a long friendship and collaborated closely with NTU over the past years.

Last year, Dean Shan-Chwen Chang of the NTU College of Medicine led a delegation to Thailand from July 16-18. The delegation visited Chulalongkorn University, Mahidol University's Faculty of Physical Therapy, Mahidol University's Ramathibodi Hospital, and Delta Electronics Thailand (DET).

As NTU already has a university-level agreement with Chulalongkorn University, the purpose of the visit was to sign a college-level MOU and MOA to promote the exchange and communication of students and doctors between the two colleges and hospitals. Besides signing the agreements, the delegation also visited Chulalongkorn's Faculty of Medicine and its affiliated hospitals.

The next stop was Mahidol University's Faculty of Physical Therapy, which was located on the Salaya campus. NTU's School and Graduate Institute of Physical Therapy has long collaborated with Mahidol University's Faculty of Physical Therapy. Students from both sides have been on exchange programs, and Prof. Hsing-Kuo Wang from the School and Graduate Institute of Physical Therapy began lectures at Ramathibodi Hospital in July. Therefore, both parties seized the opportunity to sign an MOU and lay a cornerstone for future cooperation.

The visit to Mahidol University's Ramathibodi Hospital resulted in fruitful dialogs that helped strengthen the ties between both sides. Later in November, NTU's College of Medicine completed the signing of an MOU with Mahidol University's Ramathibodi Hospital, and the agreements will further consolidate the partnership between the two colleges.

While in Thailand, the delegation also had the opportunity to visit DET. They were received by DET President Shen-Yen Hsieh. DET's executive assistant Chung-I Tam introduced the development of the corporation while the secretary to president Mei-Chun Kuo gave a presentation on the operations of DET and the application of solar energy to green buildings. This company visit marked the highlight of the trip, as it allowed the delegates to learn more about the industry.

This visit to Thailand not only benefited academic research but also brought forth exchanges of ideas regarding clinical experience and the industry. All this is believed to help facilitate future cooperation between NTU and its partner universities.

# NTU's Public Art Program Awarded Ministry of Culture's Public Art Awards

NTU boasts a distinguished collection of public art works throughout its campus. Tucked around corners and in buildings, these works have enriched the environment in which we attend classes, find inspiration, and rise up to face challenges. These works of art accessorize the campus, exposing NTU members and its wider community to the diverse range of contemporary issues and debates addressed by different artists.

The Campus-wide Public Art Program (Phase 1), launched by NTU's Campus Planning Office in 2014, was awarded the 6th Public Art Awards — Education Promotion Award in 2018. The program consisted of four public art projects conducted by four resident artists. To promote aesthetic education and help the artists create truly "localized" works for NTU, the program emphasized the importance of public participation in the creative process.

At the proposal stage, the artists were only required to present their concepts and the media to be used. During the one-year residency, they would then gradually modify their ideas and artistic presentations through interactions with NTU's students, faculty, and community members. This experimental mode of collaboration also turned the participants into curators, contributors, creators, and exhibition guides. The program produced four works of public art, seven seminars, four guided tours, and an NTU Public Art website.

Artist Duncan Mountford collaborated with Prof. Ya-Feng Wu of the Department of Foreign Languages and Literatures to present the work, "The Chamber of Uncanny Objects." It was a site-specific work that used outdated objects from NTU, such as teaching aids, equipment, specimens, and models, to create a cabinet of curiosities. Writing workshops and other events were held in classes for students to explore historical backgrounds of these objects and their varying poetic implications.

Inspired by rubbings, artist Chien-Ming Huang used light and long-exposure photography to create a group of five digital photographic prints titled, "NTU Lightscape." These prints captured the images of the Lu-Ming Hall NTU Theater, Heritage Hall of Physics, Iso House, and the

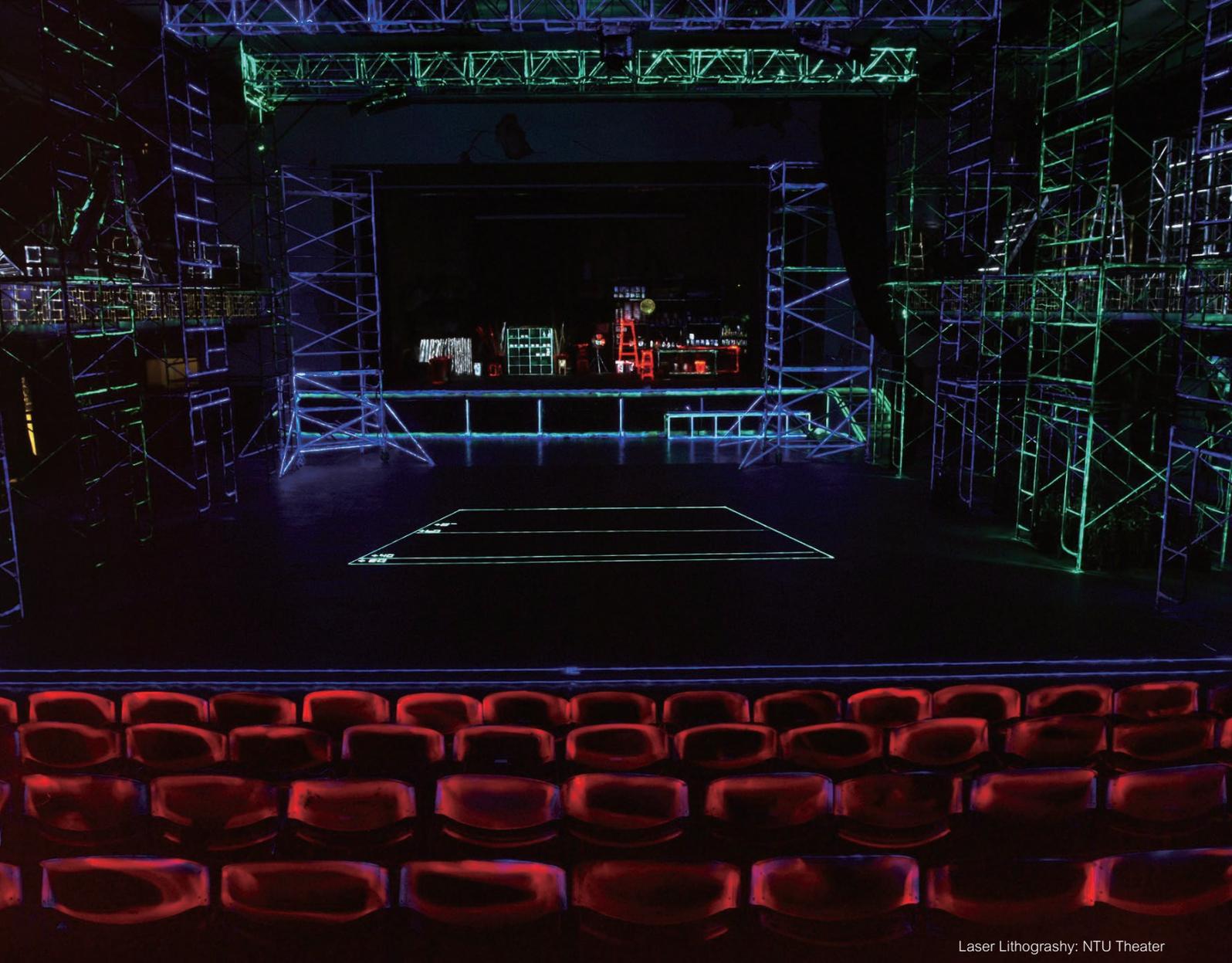
Museum of Zoology. With cameras set to long exposure and lights turned off, students of Prof. Associate Prof. Chuan-Fu Liu of the Department of Drama and Theater held laser pointers to explore in these venues. Hours later, the laser beams left traces on the photos and turned these historical buildings into futuristic images outlined by optical fibers.

NTU campus is home to many animals, including squirrels, pigeons, and bats. Yes, bats. Barely noticeable, bat caves pepper the eaves and rooftops of certain buildings. Sound artist Yannick Dauby teamed up with Associate Prof. Fumitaka Yamauchi from the Graduate Institute of Musicology to present "At the Edge of Perception — Chiroptera: (((^..^)))". Collaboratively set up by students of musicology, this audio installation recorded and transformed ultrasound waves into audible sounds, stirring the imagination of human listeners about the life of bats on campus.

Artist Wan-Shuen Tsai presented the single-channel video, "At the Edge of Perception: A Microscopic World (Flora Anima)," to unveil the aesthetic and sensorial aspects of scientific observation. Using a microscope to observe plants, Tsai attempted to show that perceiving and observing lifeforms is a hybrid process that involves reason, sensorium, craft, and imagination. The artist organized workshops with NTU's Art Club, Poetry Club, and Herbarium. She was also invited by the NTU Museum of Zoology to share her experiences at the BioArt Seminar.



At the Edge of Perception: A Microscopic World (Flora Anima)



Laser Lithography: NTU Theater



Echos as Messengers

Special Report 09

# NTU Dean of Engineering and CNRS Research Director Awarded 2018 Franco-Taiwanese Scientific Grand Prize

NTU Dean of Engineering Wen-Chang Chen and French National Centre for Scientific Research (CNRS) Research Director, Dr. Redouane Borsali, were awarded the 20th Franco-Taiwanese Scientific Grand Prize under the lofty dome of the Institut de France, a prestigious landmark known as France's palace of knowledge, on November 20, 2018.

The laureates were recognized for their research on replacing inorganic materials used in electronic devices with renewable materials, and for their endeavors in enhancing industry-academia collaboration by sharing their findings with industry. Established in 1999, the Franco-Taiwanese Scientific Grand Prize is presented annually by Taiwan's Ministry of Science and Technology (MOST) and the French Academy of Sciences according to the Franco-Taiwanese Scientific Foundation Agreement.

Every year, MOST invites Academicians of Academia Sinica to join French Academicians on the board committee to select a group of French and Taiwanese researchers who have made significant contributions to scientific research and exchange between the two nations. The Franco-Taiwanese Scientific Grand Prize is now recognized as one of the Institut de France's Grand Prix presented in November every year.

MOST and the French Academy of Sciences co-hosted the Franco-Taiwanese Scientific Grand Prize award ceremony and the laureate lectures on November 21, 2018. The prize was presented by Taiwan's MOST Minister Liang-Gee Chen and the Academy's President Sébastien Candel. Other attendees included Director of the Taipei Representative Office in France, Chih-Chung Wu; Director General of French National Research Agency, Dr. Thierry Damerval; and President of the Université Grenoble Alpes, Dr. Lise Dumasy.

During the ceremony, the two sides also renewed the Franco-Taiwanese Scientific Grand Prize for another 10

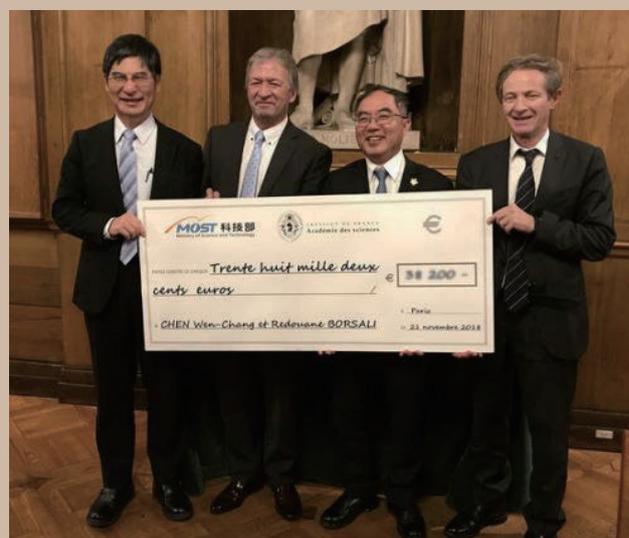
years and expected to see even more collaborations in artificial intelligence besides those in the fields of chemistry and chemical engineering.

With the support of both institutes, Dean Chen and Dr. Borsali started their research in 2011. They have worked together to use renewable carbohydrate-based block copolymers, an abundant biodegradable resource, as the charge storage layer of organic electronic components. The non-volatile memory of the electronic components can be controlled using the material's chemical or self-assembly structures.

Chen and Borsali published their findings in major materials science journals. For example, they discovered that the charge storage layer of organic semiconductor field-effect transistors using oligosaccharide-based block copolymers exhibits a write-once-read-many (WORM) memory, an excellent on/off current ratio, and a stability of several months (*Adv. Mater.* 2015).

More recently, the preparation of soft polybutylacrylate-cored, star-shaped carbohydrate-block-polyisoprene has enhanced the charge storage window, forming a crosslink-like structure that exhibits superior physical stability under extreme stretching conditions compared with linear structures (*Macromolecules.* 2018).

Dean Chen and Dr. Borsali have years of experience working together. Their future cooperation will focus on the application and development of green renewable materials for high-performance electronic components. Both researchers aim to cultivate more highly skilled R&D talent and expand academic cooperation between the two countries.



Minister Chen and President Sébastien Candel awarding the cash prize to the two laureates



## Under One Roof: NTU Invited to Attend 2018 Tübingen Family Meeting

NTU participated in the 2018 Tübingen Family Meeting (TFM) hosted by the University of Tübingen during December 2-6 in the cities of Sulz am Neckar and Tübingen in the state of Baden-Württemberg, Germany. The TFM is regularly organized by the University's Department of International Affairs to create an intimate, family-like environment for participating university administrators to share their ideas and experiences and discuss such issues as internationalization, trends and challenges in higher education, and country updates.

Last year was a special occasion, as it marked the 23rd installment of the TFM event and the 90th anniversary of the University of Tübingen's Department of International Affairs. To keep the event convivial and personal, each university was asked to send only one representative. A total of 33 representatives from 17 countries attended the TFM, including NTU's former Vice President for International Affairs, Prof. Luisa Shu-Ying Chang; California State University's Assistant Vice Chancellor, Mr. Leo Van Cleve; the University of North Carolina at Greensboro's Associate Provost, Dr. Penelope Pynes (also President of the Association of International Education Administrators); and the National University of Singapore's Associate Vice President for Global Relations, Prof. Victor Shim.

NTU's former Vice President Chang was invited to give a presentation on "Fostering Sustainable Talent Systems for

Administrators Responsible for International/Global Activities and Strategies." This topic was the main theme of the 13th University Administrators Workshop (UAW) hosted by NTU's Office of International Affairs on March 7-8, 2018. Prof. Chang introduced NTU's numerous programs for staff career advancement and professional development, as well as the opportunities provided for staff to attend local and international events.

The TFM event was held at a secluded monastery, Kloster Kirchberg, located in the city of Sulz am Neckar. The quiet place allowed participants to enjoy quality time and establish friendships. Besides meaningful conversations, the agenda included a torch hike, a visit to Tübingen's traditional Christmas Market, the world-famous chocolART chocolate festival, and other cultural activities.

Representatives also enjoyed a campus tour of the University of Tübingen, visiting the Faculties of Medicine, Science, Humanities, Social Sciences, as well as the University Museum, Department of International Affairs, and student dormitories.

The University of Tübingen and NTU's partnership began in 2006 through the establishment of an MOU and student exchange agreement. The European Research Center on Contemporary Taiwan (ERCCT) at the University of Tübingen has close partnerships with NTU's College of Law, Department of Sociology, Department of Political Science, and Global Asia Research Center (GARC).

At NTU's 90th Anniversary Ceremony on November 15, 2018, President and Vice Chancellor of the University of Tübingen, Prof. Bernd Engler, gave an address assuring the strong bond between the two universities. Being part of the family, NTU hopes to help build a networking platform and create a sense of community and belonging for university administrators and members of higher education.

# 2018 NTU-UTokyo Conference on Developing a Sustainable Society in East Asia

NTU had the honor and pleasure of welcoming the University of Tokyo (UTokyo) delegation and hosting the NTU-UTokyo Joint Conference during December 12-13, 2018. The two universities held several rounds of discussion on “Developing a Sustainable Future Society in East Asia.”

The conference marked the third bilateral forum between NTU and UTokyo. The 79-member delegation from Japan met over 300 representatives from 10 NTU colleges for transnational, cross-disciplinary conversations about the sustainable development of East Asia. It was also UTokyo President Makoto Gonokami’s first visit to NTU since he took office in 2015. He arrived a few days before the conference and met with NTU’s former Interim President Tei-Wei Kuo to discuss further collaborations between the two schools.

The 2018 NTU-UTokyo Joint Conference was opened by NTU’s former Executive Vice President for University Affairs Ta-Te Lin and UTokyo President Gonokami. Former Interim President Kuo, though unable to attend, offered his welcome greetings via a video presentation.

In his welcome remarks, Dr. Lin gladly revealed that the joint conference has created a research community of over 300 faculty members from the two schools since its beginning in 2015. Moreover, NTU launched an initiation funding program in 2016 to support NTU faculty members who are interested in conducting collaborative research projects with NTU’s strategic partners. Among the 162 approved projects so far, 56 were collaborations with UTokyo.

During the conference, three keynote speeches were delivered by NTU’s former President Pan-Chyr Yang, UTokyo Prof. Hiroyuki Nakayama, and NTU Prof. Chun-Chieh Wu. Dr. Yang talked about fine particles (PM2.5) as a global threat, gene-cancer relationships, and prevention and treatment suggestions. Dr. Nakayama shared the experience of how UTokyo’s Future

Society Initiative and One Earth Guardians have put the One Health concept into practice to foster a sustainable future. Dr. Wu introduced the multi-year project DOTSTAR and how his team’s targeted observations and research results have helped improve weather forecasting accuracy to reduce typhoon-related disasters.

Besides the keynote speeches, a total of 12 parallel sessions were held on a wide range of topics, including social sciences, electronic engineering, computer science, oceanography, medicine, public health,



**2018 NTU**  
**Developing a S**

materials science, agriculture, forestry, veterinary medicine, psychology, and biotechnology.

NTU began a strategic partnership with UTokyo in 2015. In 2015 and 2016, bilateral cross-disciplinary forums were held at UTokyo and NTU, respectively. In 2015, NTU's former Executive Vice President for Academics and Research Liang-Gee Chen led 90 faculty members and students to Tokyo for the first joint conference. In 2016, UTokyo Vice President Masashi Haneda led a delegation of a similar size to Taipei for the second conference.



NTU College of Bioresources and Agriculture signs a memorandum of understanding with UTokyo Graduate School of Agriculture and Life Sciences.

Group photo at the 2018 NTU-UTokyo Joint Conference.





## SoNTU: Share Your NTU Spirit!

SoNTU is a global brand that was created by the Office of International Affairs (OIA) in 2015 to promote NTU values through quality gifts and souvenirs. SoNTU aims to present gifts and souvenirs that embody the NTU spirit and to enhance the image of the school.

### Gift-giving is an Art

Since 2015, NTU has participated in an increasing number of large-scale international exchange activities. In view of this, the OIA recognized the importance of gift-giving on these occasions and founded SoNTU to launch original and innovative NTU-themed gift products.

All products are ingeniously designed and perfectly manufactured, bestowing each item with a unique significance. SoNTU's insistence on quality control is the reason why it has become the best choice for many NTU faculty members and students when they purchase gifts.

### All Together for Globalization

In order to enhance its reputation among students, the OIA hosted a photography contest named "Suit Now To U." International students teamed up to take creative pictures at famous attractions in Taiwan wearing SoNTU T-shirts. This contest not only helped promote the brand's value but also served as a platform for international and

local students to work together and unleash their creativity. In the process, the OIA was able to bring SoNTU closer to the students as well as start new friendships between students from different countries.

### Infinite Creativity: The Beginning of a New Brand Era

2018 marks the 3rd anniversary of SoNTU, and "NTU Global Branding Scholarship" was established by the OIA to harness more innovation and increase the brand's diversity. Unlike conventional scholarships which assess students' eligibility according to grades or specific qualifications, the NTU Global Branding Scholarship encourages applicants to revel in their originality and tap into the brand's spirit by using popular advertising tools such as short films, slogans, or projects.

### Innovation: The Charm of SoNTU

SoNTU has evolved during the past few years and gained more experience in online marketing and retail. Bold and innovative, SoNTU is unafraid to think outside the box in product branding. "Be The Change" is the value which SoNTU upholds, and the brand will continue to deliver this message to all its supporters and NTU members at home and abroad. SoNTU hopes to bond NTU members as well as promote the NTU spirit and make Taiwan and NTU known to the world.

Visit SoNTU at: <http://sontu.oia.ntu.edu.tw/>

# Research Proves Potential Bidirectional Interaction between Sperm and Reproductive Tract

A research team from the NTU Institute of Veterinary Medicine made a groundbreaking finding that challenges the conventional belief that epithelial cells have a unidirectional communication with the sperm by demonstrating the potential existence of bidirectional communication and interactions between the sperm and the reproductive tract. This groundbreaking research was conducted by the Laboratory of Reproductive Physiology and Cell Biology, chaired by Assistant Prof. Pei-Shiue Tsai of the Institute of Veterinary Medicine, in collaboration with researchers at other laboratories at home and abroad.

One of the lab's research focuses has been to understand the reproductive tract's roles and functions in the process of sperm-egg binding and sperm maturation. According to Dr. Tsai, this study was inspired by Tse-En Wang, a second-year doctoral student of the Institute of Veterinary Medicine, who wrote a research paper titled "The Involvement of Epididymal Proteins in the Maturation Processes of Sperm Cells."

This study was supported by the Ministry of Science and Technology's Young Investigator Merit Award, as well as the Strategic Partnership Grants provided by NTU's Office of International Affairs and the University of Tokyo. Funded by these two grants, Dr. Tsai's lab connected and integrated data resources from laboratories in several different countries, including Dr. Sheng-Hsiang Li of the Mackay Memorial Hospital; Prof. Meada, Prof. Matsuda, and Dr. Minabe from the University of Tokyo; and Prof. Nixon and Prof. Dunn from the University of Newcastle. Together, they conducted large-scale proteomic screening, whole tissue imaging, epididymosome isolation, and glycan analyses to investigate the regulation and function of the epididymal secretory protein Quiescin Q6 Sulfhydryl Oxidase (QSOX).

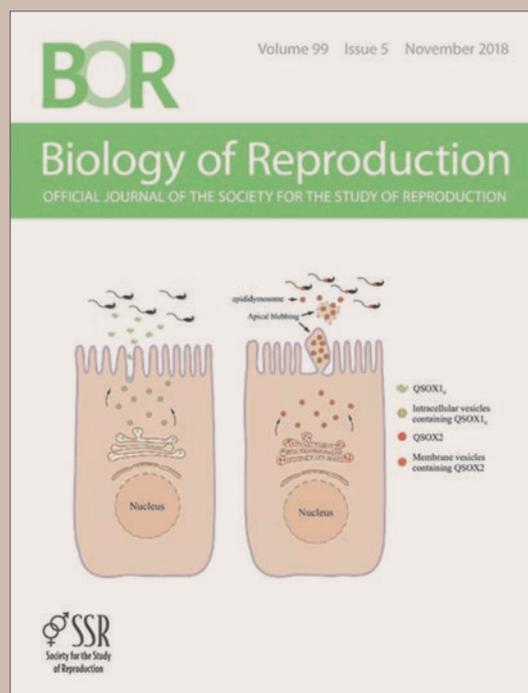
The team proved for the first time that the two subtypes of QSOX, namely QSOX1 and QSOX2, are abundantly distributed in the male's reproductive tract and display a complementary distribution throughout the epididymis. Through the qualitative and quantitative measurement of the isolated epididymosome, the study further confirmed that QSOX2 is regulated by the apical blabbing secretion



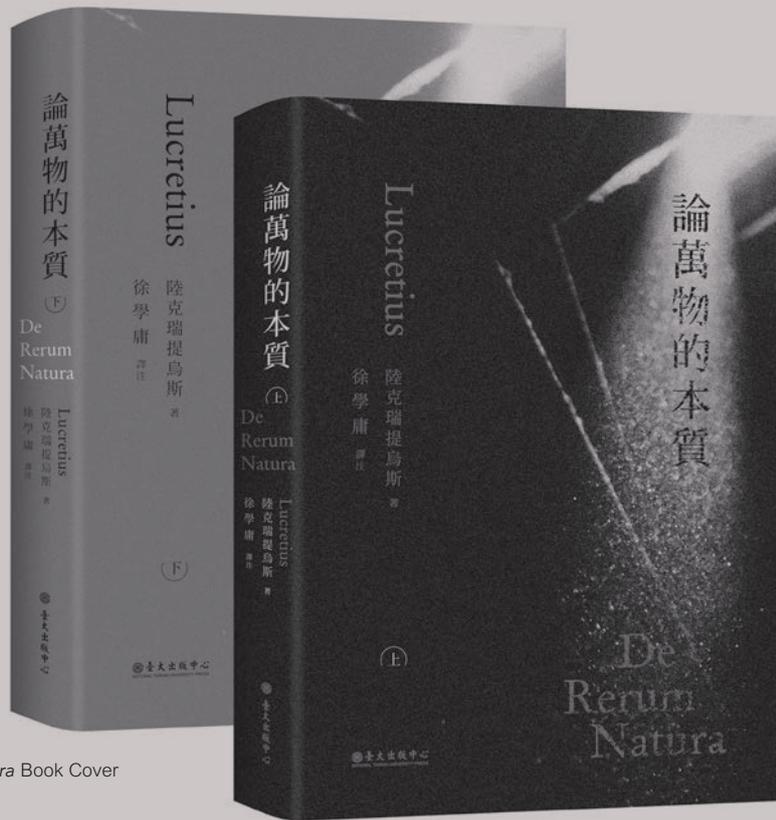
of the epididymal epithelial cells, and then is attached to the sperm head-neck junction to stabilize the structure of the spermatozoa. By contrast, QSOX1 is distributed in the lumen and specifically adheres to the sperm cap region (acrosome). It inhibits the non-specific and immature acrosome reaction before the sperm cells meet the egg, thus providing as a protective mechanism.

By using Kisspeptin gene-knockout mice and in vitro cell-based assays to examine the gene of QSOX2, the team confirmed that the expression and secretion of QSOX2 are regulated by testosterone through atypical androgen receptors on the principal cells of epithelial cells.

These findings were published in the international journal, *Biology of Reproduction*, in an article titled "Mouse Quiescin Sulfhydryl Oxidases Exhibit Distinct Epididymal Luminal Distribution with Segment-Specific Sperm Surface Associations." The article was also selected as the cover story of the November 2018 issue.



This study was selected as the cover story for the *Biology of Reproduction's* 2018 November issue.



De Rerum Natura Book Cover

## De Rerum Natura: Understanding the Nature of Things and Conquering the Fear of Death through Epicurean Philosophy

How are we to face death? This is a question that human beings have sought to answer for millennia. Humankind's fear of this unknown has fostered fear towards death. Fear and superstition have deprived human beings of the freedom to pursue valuable and virtuous goals in life. Lucretius wrote *De Rerum Natura* (The Nature of Things) to explicate the world through Epicurus's theory and help readers conquer their superstitions and fear of death by understanding the nature of the physical world. Lucretius believed that only by this understanding can human beings be liberated from the interference of fear and live a tranquil and virtuous life.

*De Rerum Natura* illustrates the principles of atomism, the origin of the cosmos, the nature of the mind and soul, the development of human civilization, and how disasters,

such as plagues, wreak havoc. Lucretius stresses that none of the events on earth are the results of divine intervention. He refutes religious and philosophical beliefs that preach the immortality of the soul, and divine judgment and punishment after death. The entire work celebrates the glory of humanism, and Lucretius elegantly urges his readers to become the masters of their own fate.

To guide readers through the philosophical themes and context of *De Rerum Natura*, the translator and annotator Hsei-Yung Hsu included an introduction to and commentary on the work, a detailed analysis, relevant readings, and a timeline marking major historical events. The annotations are largely based on C. Bailey's Latin translation of Lucreti *De Rerum Natura Libri Sex* (1922), an edition included in the Oxford Classical Texts. Hsu also referred to several Latin editions, including those by Munro (1886), Bailey (1947), Leonard and Smith (1970), and Rouse (2002). This book fully captures the essence and philosophical profundity of the original work, serving as a perfect guide for researchers of the field.

### About the Translator and Annotator

Hsei-Yung Hsu is a professor of philosophy at NTU. He received his doctorate of philosophy from the University of Glasgow. He has taught at Tunghai University's Department of Philosophy and was also a visiting scholar at the University of Oxford. His field of research includes ancient Western ethics and political philosophy.

# NTU and NTSU Host a Special Exhibit Featuring Female Athletes of the 2018 Asian Games

On its 90th anniversary, NTU joined hands with National Taiwan Sport University (NTSU) to launch a special exhibition featuring the “Blooming Female Athletes of the 2018 Asian Games.” The exhibition showcased the outstanding performance of the top female athletes in the past Asian Games and presented the growing number of female athletes participating in the games. The purpose of the event was to celebrate the beauty and strength that female athletes have demonstrated during the games and promote gender equality in sports.

Three established female athletes who had participated in the Asian Games were invited to speak at the opening forum themed, “Sports Careers and Prospects of Female Athletes in Asian Games.” Shu-Ching Hsu, Asian Games and Olympics gold medalist in weightlifting, Chia-Ying Lin, shot putter in the 2014 Incheon Asian Games, and Mei-Chien Huang, swimmer in the 2018 Jakarta Palembang Asian Games, all shared their experiences and future career plans.

Forum attendees had the opportunity to learn from these three remarkable female athletes and witness the positive energy brought by sports. Sports is not a privilege enjoyed by a select few but an activity that transcends the boundary of gender, age, class, and nationality. Everyone deserves a chance to unleash their full potential and enjoy the pleasure of sports.

The three female Taiwanese athletes shared their training courses and competition experiences. Shu-Ching Hsu, two-time consecutive Olympic gold medalist in weightlifting, said that even though her training mostly involves repeating the same moves, there were still times of hardship and struggle. Chia-Ying Lin, shot putter who has participated in four Asian Games, said that track and field is her life passion. The thought of quitting has never crossed her mind, and she would feel sad if she didn't have time to practice.

National record holder in the 50-meter butterfly and an NTU student majoring in bioenvironmental systems engineering, Mei-Chien Huang said that when training with male swimmers, the coach would fine-tune her training regimen instead of asking her to complete the same amount of practice. Huang regards this as a demonstration of how gender equality is realized in sports.

This event gave the audience a chance to learn more about the mental and physical journey of athletes from the perspectives of the three outstanding female athletes. At the end of the forum, members of the audience interacted with the three athletes by mimicking their athletic moves, making the event a fun experience and a great success.



Participants of the “Blooming Female Athletes of the 2018 Asian Games”

# Huai Su's Cursive Script Invokes the Spirit of Unrestrained Creativity in NTU Library

Visitors to the NTU Library now have the opportunity to appreciate Chinese cursive script by Huai Su and other imitations or replicas of his works. The exhibition, "Fantasy: Replicas and Stylistic Heritage of Huai Su's *Autobiography*," was launched at Zu-Zan Hall in NTU Library on January 4 and will run until April 28, 2019. The brains and hands behind this exhibition came from NTU's Graduate Institute of Art History, Main Library, and College of Liberal Arts.

The opening ceremony was attended by NTU's former Interim President *Tei-Wei Kuo*, University Librarian Kuang-Hua Chen, Dean of the College of Liberal Arts Mu-Hsuan Huang, and Director of the Graduate Institute of Art History Lan-Shiang Huang, all of whom gave their endorsements and expressed congratulations for successfully holding the exhibition in their remarks.

Lenders of this exhibition included Founder of Qian Shou Tang Yi-Yuan Kang, Founder of Jinmotang Calligraphy Research Foundation Xiao Lin, Director of the HCS Calligraphy Arts Foundation Guo-Hao Wu, and representatives of Eslite Gallery. All of the lenders attended the event to celebrate the auspicious occasion.

At the ceremony, Prof. Hui-Wen Lu from the Graduate Institute of Art History gave a special presentation on the approaches to appreciate Chinese calligraphy. Prof. Lu used the concepts of "wildness," "cursive," and "wild cursive script" to explain the complex relationships between "following the rules" and "being innovative" in the process of artistic creation.

Wild cursive script originated in China during the Tang dynasty (800 A.D.). This form of writing is characterized by the connected style of the characters and its coarseness, wildness, and expressive power. Since wild cursive script is often associated with wayward, unruly behavior, and drunkenness, it is also regarded as the epitome of expressionism and romanticism in Chinese calligraphy.

Huai Su's *Autobiography* is the most widely acclaimed, iconic, and influential work of wild cursive script. Besides the original text, which is currently kept at the National Palace Museum in Taiwan, there are many other modeling replica versions of the original work. These works are like an illusion or fantasy of Huai Su's work, allowing his art to reverberate through the ages.

The exhibition displays re-engravings from the Ming and Qing dynasties, photography replicas, ink paintings, and modern ink works which showcase the evolution and development of wild cursive script from the Tang dynasty to the present.

As the seventh special exhibition hosted by the Graduate Institute of Art History, this event was organized by Prof. Lu and her team of graduate students. Prof. Lu said that her sense of responsibility to successfully realize this exhibition was her motivation, and the effort of orchestrating the event gave her deeper insight into Huai Su's *Autobiography*. She also expressed admiration for her students' passion and professionalism and hoped the exhibition would be enjoyed by visitors during the following four months.



The opening of *Fantasy: Modeling Replicas and Traditions of Huai Su's Autobiography*



中華郵政臺北雜字第1146號  
執照登記為雜誌交寄

