

# NTU



# HIGHLIGHTS

Special Report:

# Sustainable Development

- Scholarships Encourage Students to Go Global
- Flood Forecasts Improved
- Public Health College Honored for Community Service

## NTU to Revamp Historical Buildings

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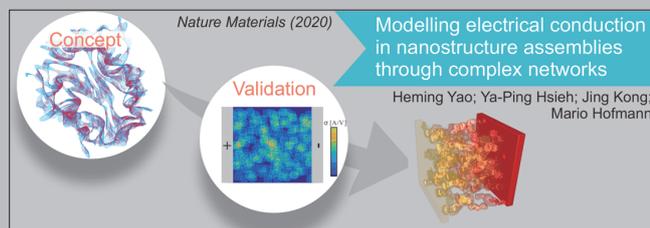
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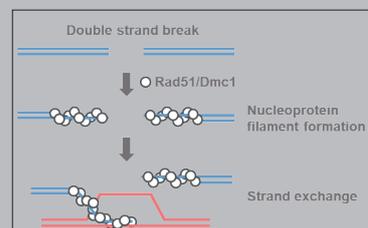
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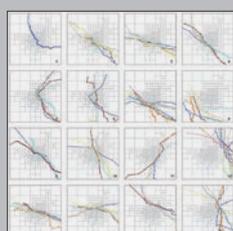
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# Message from Prof. Shih-Torng Ding, Vice President for Academic Affairs

Facing the global pandemic, NTU is determined to secure the safety of its students and to ensure that their education is not interrupted. In response, we have upgraded NTU COOL, an asynchronous distance learning platform developed by NTU, and provided tutorial sessions to help faculty members continue teaching online. For those students who had planned to go abroad this semester on exchange programs, NTU helped them to negotiate with NTU's partner universities to allow for flexible arrangements. Students who couldn't participate in their exchange programs abroad and those who had to return early from their stays abroad this year, were re-admitted as registered students this semester.

NTU has been promoting "blended / hybrid learning" in recent years, and faculty members are encouraged to record and upload their lectures in advance for students to preview online before attending classroom sessions for group discussions. To date, there have been over 1,000 courses on NTU COOL, enabling students to learn effectively anywhere and anytime.

Furthermore, NTU has actively promoted "participatory learning," a learning model that encourages students to observe social phenomena surrounding a social issue, come up with pertinent solutions, and actively learn through interaction. NTU launched the Future Classroom in March 2020. The classroom is equipped with movable tables, chairs, and touch screens, making it easier for teachers and students to interact multilaterally. The Future Classroom is still in its experimental phase. If it proves to be an effective setting for teaching and learning, more such classrooms will be set up to meet the teaching needs of each department.

"Honors Programs" that are aimed to encourage research collaborations between faculty members and students are also in the pipeline. NTU's goal of education is to consolidate students' core



strengths and promote interdisciplinary innovation. We hope that students not only learn in class but also proactively take part in research projects with their teachers, thereby deepening their learning.

Currently, NTU consists of 11 colleges and 3 professional schools, offering numerous programs and courses that cover a wide array of disciplines across science, the arts, and the humanities. Besides the knowledge of their academic discipline, students are encouraged to take advantage of the spectrum of knowledge that NTU has on offer by boldly crossing disciplines and acquiring different skillsets, to be equipped to meet the challenges brought on by the rapidly changing world.



## Art Settlement Planning: NTU Breathes New Life into Historical Buildings

Branching out from the NTU campus, the area surrounding Wenzhou Street, Dingzhou Road, and Roosevelt Road boasts a rich cultural and historical landscape. Tasked with the responsibility of passing down the cultural heritage of the historical buildings on Wenzhou Street, NTU takes things to the next level by adopting a macro perspective. Rather than treat building preservation as the only goal, NTU involves faculty, students, community residents, and artists in developing a blueprint for a local art settlement, giving the unique history of the area a human touch.

The university will invite faculty members and student representatives to join all discussions relevant to the planning of the historical buildings, and establish an NTU Contemporary Culture Center after collecting local and professional feedback, taking all factors regarding the preservation of tangible cultural assets into consideration, and incorporating the university's unique spirit and diversity of thought. The university has partnered with Taipei City Government's Department of Cultural Affairs to revitalize and construct a local art and cultural platform, shaping the area into a one-of-a-kind cultural landscape.

A great example would be the former residence of Prof. Jing-Nong Tai, a literary master and the former chair of the Department of Chinese Literature. The faculty and students came to a joint decision of turning the building located at No. 25, Wenzhou Street, into a "historical building" or "memorial building" that commemorates its humanistic spirit, rather than simply preserving the structure itself. The



NTU President Chung-Ming Kuan visits the former residence of Prof. Jing-Nong Tai with Vice President for General Affairs Yu-Ning Louis Ge.



NTU President Chung-Ming Kuan presents NTU's blueprint for the art settlement at Taipei City Government.

university aims to breathe new life into the building with more flexible renovation plans, allowing it to maximize its functions and connections with the surrounding neighborhood.

NTU has decided to pay homage to local history and Prof. Tai by preserving and revitalizing the building rather than tearing it down. After discussions with the faculty and students from the Department of Chinese Literature and representatives from the Student Association, a consensus was reached to make Prof. Tai's former residence into a building of literary and historical significance that presents the master's contribution to literature, expresses the ambiance of his era, and highlights his interactions with contemporary society.

The initial plan is to transform the former residence into "Jing-Nong Tai Culture Center" or "Jing-Nong Tai Lecture Hall." Besides presenting Prof. Tai's life, achievements, literary works, calligraphy, and seal carving works, this memorial building will also host art and literature courses and lectures to connect with the surrounding communities as an arts and

humanities platform. In the future, it will become part of the art settlement with other historical buildings belonging to NTU and play an even more important role in the comprehensive plan.

Another example is Qingtian 76, an old Japanese-style wooden house that served as Prof. Ting Yin H. Ma's residence. Prof. Ma, the former chair of the Department of Geosciences, settled down in the grand structure located at No. 6, Lane 7 of Qingtian Street upon his relocation to Taiwan. A well-respected scholar in his field, Prof. Ma housed other scholars here from time to time. Officially a dormitory building designed by Prof. Massashi Adachi in 1931, Prof. Ma was so fond of the mixed architecture style and the garden that he never made any modification. Known for his diligence and kindness, many of his peers and students frequently dropped by for discussions as well as to pore through the research materials in his possession.

As it required monumental work to maintain the wooden structure in the humid climate of Taipei, Prof. Ma donated ownership to NTU in 1962. After he passed away in 1979, his wife and children continued to live in the residence until his wife's passing in 2007. The doors of the residence were opened to the public in 2011. Not only is the building restored to its original appearance and glory, the site offers guided tours, workshops, lectures, as well as the possibility of enjoying a meal made with locally-sourced fresh ingredients in the quiet ambiance. Nowadays, it is a building with rich history that the community can experience and share, adding their memories to existing ones from the people before them. Visiting here is like going back in time; the world slows down to make way for an intellectual and spiritual way of life.

In the future, NTU will involve all its members in the restoration plans, extending the reach of on-campus courses to these former residences and organizing guided tours to pass down the heritage that comes with the privilege of being a member of NTU — the oldest university in Taiwan — and to share a taste of this history with everyone in the community.

# NTU Signs Letter of Intent to Promote Sustainable Development

NTU President Chung-Ming Kuan signed the “Letter of Intent on Sustainable Development Cooperation” with Dr. Eugene Chien, Chairman of the Taiwan Institute for Sustainable Energy (TAISE). Finalized in March 2020, the initiative is aimed to promote sustainability in the context of higher education, tying the university’s social responsibility to the goal of sustainable development. Not only does it allow sustainable development to take root in education, it creates room for industrial development as well as social progress.

People have raised the bar for higher education in recent years, expecting university faculty members and students to give back to the society with their expertise while taking advantage of social resources. They have been called on to step out of their bubble and focus on public issues, such as local community culture, industrial innovation, and sustainable development.

NTU has been dedicated to the education, research, and practice of university social responsibility (USR). The Office of Institutional Research and Social Responsibility was set up in the second half of 2019 to integrate the university’s strategies and actions, systematically developing the blueprint for sustainable development. To further empower society, NTU has outlined a vision of “propelling into the future by practicing sustainability” and set this goal as a milestone for the university’s 100th anniversary in 2028.

As a world-class university, NTU has spared no effort in realizing the United Nation’s 17 sustainable development goals (SDGs) from the vantage point of academia. To counter the threat posed by climate change to the global ecological environment and sustainable economic

development, NTU proposes four strategies in the iNTU sustainability blueprint, namely, innovation development, nurturing students, talent recruitment, and united globalization. It is the university’s sincerest hope to offer comprehensive solutions and thereby fulfill its USR by integrating both internal and external resources across different disciplines.

NTU has made significant achievements in the field of USR. The results of the 2020 Commonwealth University Citizen (USR) Rankings were published in April, with NTU taking the first place among public universities in Taiwan. NTU’s social involvement has been put in the spotlight during the COVID-19 pandemic, with Executive Vice President Shan-Chwen Chang playing the vital role of the convener of the advisory specialist panel of the Central Epidemic Command Center (CECC), as well as the rent reduction program proposed to the establishments on campus. These initiatives will undoubtedly benefit society while contributing to the university’s own sustainable development.



NTU President Chung-Ming Kuan (right) signs the “Letter of Intent on Sustainable Development Cooperation” with Dr. Eugene Chien, Chairman of TAISE.



NTU hosts a press conference on its COVID-19 preventive measures and social responsibilities.



NTU's College of Public Health receives 2020 ASPPH Harrison C. Spencer Award for Outstanding Community Service.

## NTU's College of Public Health Wins 2020 ASPPH Harrison C. Spencer Award

NTU's College of Public Health and the University of Nebraska Medical Center (UNMC)'s College of Public Health jointly won the 2020 ASPPH Harrison C. Spencer Award for Outstanding Community Service. The award was announced by the Association of Schools and Programs of Public Health (ASPPH) on their official website.

Aiming to acknowledge public health colleges and programs which have made exceptional contributions to sustainable community development, the award honors the legacy of the late Dr. Harrison Spencer who served as the president and CEO of ASPPH. Awardees are granted prize money for further investment in collaboration with their community partners. NTU's College of Public Health had the pleasure of joining the ranks with outstanding awardees from the past, including Drexel University's Dornsife School of Public Health in 2018 and Johns Hopkins Bloomberg School of Public

Health in 2019.

NTU's College of Public Health has partnered with Lienchiang County Government and Changhua County Government for the past two decades in offering community-based integrated public health service (CIPHS). The service makes health screening for community residents and training for local public health professionals available and has had exceptional results. The program has established a model of resource sharing and collaboration between academia and the local community for which it won this recognition from ASPPH which honored the college as the first winner located outside the United States.

Due to the COVID-19 pandemic, the ASPPH Annual Meeting was held online in 2020. As a result, the award luncheon on the meeting agenda was postponed to 2021, as well. In the meantime, a video made by the College of Public Health on its service in Changhua and Matsu has been made available on the ASPPH website, allowing the world to witness Taiwan's incredible achievements in the field of public health.



Scan the QR code for further information about the award and the winners this year.

# Introducing the First Graduating Class of GIP-TRIAD

International Joint Degree Master's Program in Agro-Biomedical Science in Food and Health, also called GIP-TRIAD, is an innovative joint-degree program hosted by three renowned universities, namely, NTU, the University of Bordeaux, and the University of Tsukuba. This unprecedented cooperative program between Taiwan, France, and Japan is aimed to nurture international leaders with expertise on food and health to find solutions to health issues and food security.

Under the leadership of Program Director Tsai-Kun Li, NTU Deputy Vice President for Academic Affairs and Director of the Preparatory Office of NTU's International College, GIP-TRIAD fully leverages the merits of each party to offer the students an interdisciplinary and practical curriculum that incorporates AI-related courses and internships. The courses taught at NTU were primarily designed by the College of Medicine, College of Public Health, College of Bioresources and Agriculture, College of Life Science, School of Dentistry, NTU Center for Biotechnology, and NTU Centers of Genomic and Precision Medicine. GIP-TRIAD has also participated in international conferences, such as the Tsukuba Conference in September 2019. During the conference, GIP-TRIAD passed the assessments of Japan's Ministry of Education, Culture, Sports, Science

and Technology, and also hosted a mini-symposium and a closing gala with Kyoto University and the University of Tsukuba.

With the support of the university, participating students from NTU met all the graduation requirements and successfully became part of the first graduating class of GIP-TRIAD in June 2019. The program's first-ever commencement and torch relaying ceremony was attended by NTU Executive Vice President Chiapei Chou, NTU Executive Vice President Shan-Chwen Chang, Dean of Bioresources and Agriculture Hsu-Sheng Lur, and Dean of Public Health Chang-Chuan Chan, who congratulated and celebrated with the students. This highly international and significant ceremony, which gathered experts from different sectors, was also joined by Prof. Masao Ichikawa, GIP Representative of the University of Tsukuba, and Prof. Dominique Rolin, GIP representative of the University of Bordeaux, via video call.

NTU students have excelled, not only in the program but also in international competitions, earning numerous scholarships and awards. For example, a startup team led by Bill Tsai was awarded the first prize and special prize at the 2019 InnoVEX Pitch Contest; Tsai is also a winner of NTU Outstanding Student Scholarship. Yi-Lin Tsai and Yi-Hsi Huang received the 2018 GIP-TRIAD Scholarship. To date, there are already 10 local students who have received the Joseph Fourier Master Scholarship from the French Office in Taipei.

First graduating class of GIP-TRIAD and its successors.



# Experiential Opportunities to Engage with International Investment Law and Investment Arbitration

As the world's economies become more interdependent due to the growing scale of international trade of goods and services, the number of disputes related to international investment and trade is also increasing. The related legal issues are complex and pose a huge challenge for trade and legal practitioners because these disputes often not only involve legal knowledge but also require an understanding of different industries, cultures, human rights, the environment, and the concept of sustainability. In response to this trend, NTU's College of Law has been expanding its curriculum to provide students with more options, to help them to build the expertise, skills, and perspectives required to become future leaders in the field of law.

"Seminar on International Investment Law and Investment Arbitration," a well-received course among the students of the college, is aimed to provide the students with professional knowledge and capability in international investment law and

investment arbitration. This two-semester course, offered by Prof. Tsai-Yu Lin, also attracts numerous international students since it is conducted in English. In the first semester, students are introduced to the content and fundamental principles of international investment law, then they learn and practice the procedures of investment arbitration in the second semester. Each lecture is followed by a simulated arbitration proceeding based on an actual case. Students are divided into two sides—the applicant and the respondent—to defend their stance on the motion. Afterwards, they receive clarifications and feedback at the end of the activity. This practice ensures that students think more deeply about the issues covered in the lecture and develop sound advocacy skills.

Students are also required to give oral presentations in groups on topics or cases related to the subjects taught in the course. Since the students come from diverse countries and have different legal training backgrounds, these activities offer them the opportunity to communicate, collaborate, and practice with their heterogeneous counterparts. This not only offers students new perspectives but also prepares them for the challenges that await them in international law firms.

To immerse students in foreign legal cultures, Prof. Lin also invites experienced international arbitration lawyers, such as senior counsels from Hong Kong and Singapore, as guest speakers to share their knowledge and work experience in class. This course not only integrates theory and practice but also presents students with the perfect chance to shine on a bigger stage.

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Instructor and students of the "Seminar on International Investment Law and Investment Arbitration."



Interior of NTU Law Library.



Exterior of NTU's College of Law.

# Embarking on a New Adventure with NTU Voyage of Aspirations Scholarship

NTU established the “National Taiwan University Voyage of Aspirations Scholarship” to increase the students’ global exposure, broaden their international outlook, and enhance NTU’s academic and cultural exchanges with higher education institutions abroad. With this scholarship, students receive funding to apply for student exchange programs and embark on new adventures to acquire international learning and gain a wide array of cultural perspectives. This experience will encourage students to step out of their comfort zone, become talents with international competitiveness, and shine on the international stage.

The scholarship is aimed to provide a total of TWD 20,000,000 every year to 100 students who wish to participate in student exchange programs. With the generous and continual donations of our alumni, the scholarship is expected to have ample funding to support students to fulfill their dreams. A comprehensive plan has also been devised to raise funds from alumni, the details of which will be presented to the alumni in the near future. In order to fully leverage the scholarship, the amount of grant each student receives will be determined and adjusted according to the country and the total period of study. This mechanism not only ensures prudent use of the scholarship but also gives students more time to plan their budgets.

Since his inauguration in 2019, President Chung-Ming Kuan has spared no effort in raising funds for the scholarship. Thanks to the full support of our generous alumni, the NTU Voyage of Aspirations Scholarship was officially launched in October 2019 and has been awarded to a total of 76 students to date. The recipients will soon commence their exchange studies in countries including the United States, Canada, the United

Kingdom, Germany, France, Sweden, the Netherlands, Italy, Poland, Hungary, Australia, Japan, and Korea during the 2020/2021 academic year. Many of these students will enjoy the opportunity to study abroad for a complete academic year to fully experience the benefits of the student exchange program.

The NTU Voyage of Aspirations Scholarship is committed to helping more students with financial constraints to study abroad. With this chance to explore the outside world, students will be able to enhance their language skills and academic performance, as well as broaden their outlook by interacting with and learning from people of different cultures. The financial contributions of generous NTU alumni will help the students to transform their lives by offering them an overarching exchange experience that makes success possible for everyone.



NTU President Chung-Ming Kuan encourages students to embark on a world adventure at the NTU Study Abroad Fair.



Exchange students share their experiences and create positive impact.

# NTU-Sinica Team Makes Predicting Conduction in Nanostructures Easy

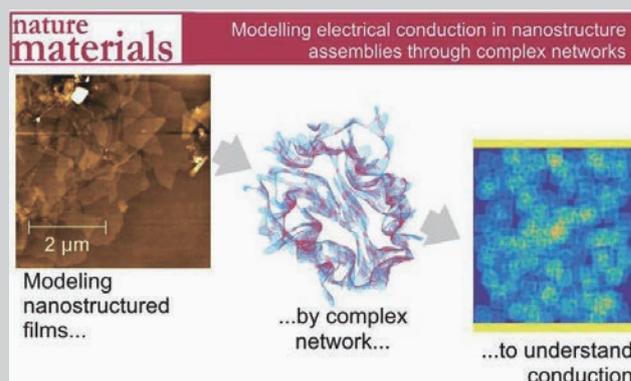
The last 20 years have seen a revolution of nanomaterials, such as nanotubes, flakes, and buckyballs, that are composed of just a few thousand atoms. To make an impact on our macroscopic world, millions of these nanoobjects have to be combined.

Associate Prof. Mario Hofmann of NTU's Department of Physics and Dr. Ya-Ping Hsieh of the Institute of Atomic and Molecular Sciences (IAMS) at Academia Sinica, formed MY-Lab and set to work on putting thin films of graphene flakes on glass to form invisible electrodes for screens and solar cells. This task proved more difficult than expected, as making flakes thicker would reduce transparency while making flakes larger would compromise conduction.

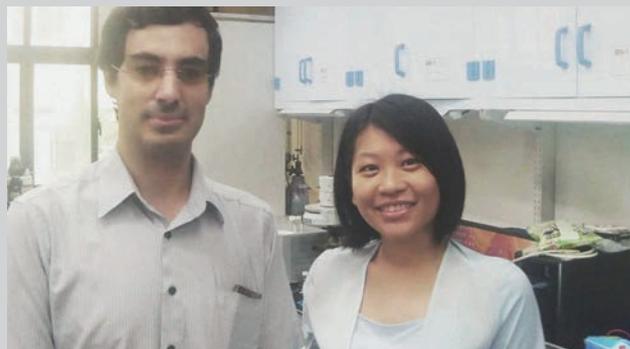
As the flakes were randomly shaped and oriented, the MY-Lab team had to capture the complicated conduction among different flakes by developing their own tool with the help of a visiting student from the University of Hong Kong.

Instead of describing the nanomaterial as patterned in shape to predict conduction, the team introduced a simple and universal method to convert the nanostructure into a complex network with arbitrary connectivity similar to the connections in the brain or links among websites. The links among materials and networks were made by breaking each flake into hundreds of pieces and giving each piece a resistance. This facilitated calculation with the help of a software that had been developed to predict animal migration patterns. Even without programming experience, this approach allowed researchers to capture the complexity of many nanomaterials.

Returning to their original task, the researchers were able to connect their results with simulations in nanostructured films and extract important



NTU-Sinica team makes predicting conduction in nanostructures easy.



Associate Prof. Mario Hofmann (left) and Dr. Ya-Ping Hsieh (right).

information. By comparing two simple measurements (i.e., light absorption and film resistance) of a sample to the simulation results, the team could estimate the properties of a single flake. This approach allowed the researchers to compare different films and materials to obtain the optimal electrode or transistor without having to use high-powered microscopes or specialized measurement tools.

Finally, the team investigated 200 different types of nanostructures to determine which geometry would be the most suitable for their electrodes, and was reassured to find that flakes are close to ideal for this application.

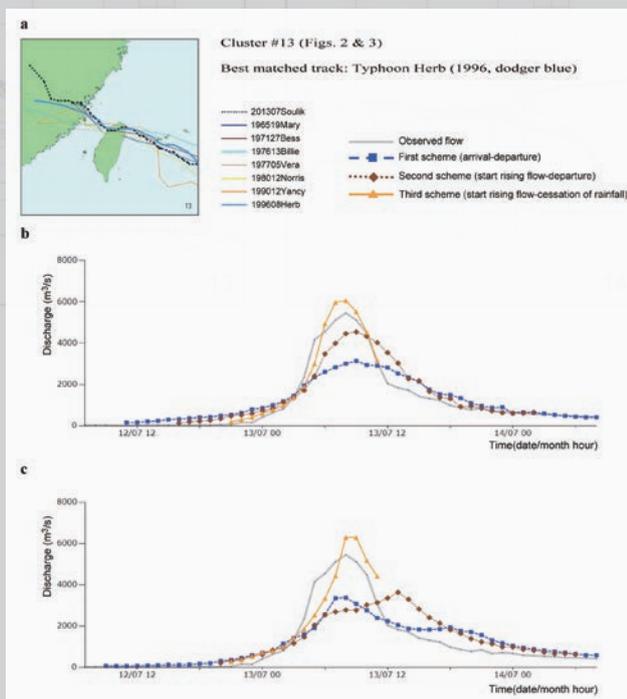
Their work has recently been published in *Nature Materials*, and the authors hope that researchers in the field of materials science and nanotechnology will be inspired to use their method for improving our understanding of the unexpected properties of nanostructures.



Scan the QR code to read the article.

# NTU-TKU Team Advances Typhoon-Related Flood Forecasts by Two Days

Typhoons often bring torrential rains, leading to tremendous floods in a matter of hours. With Taiwan's steep terrain and short rivers, this rainwater could quickly fill up the reservoirs and cause enormous pressure and risks associated with flood discharge. The multinational research team led by NTU's Department of Bioenvironmental Systems Engineering has now developed AI technology to predict flood patterns two days in advance based on projected typhoon tracking, significantly enhancing the timing accuracy of flood warning, as well as the effectiveness of reservoir flood control and integrated water resources management. This study was published in the internationally-renowned journal, *Nature Communications*.



The predicted flood hydrographs for a typhoon.

Members of the research team included Prof. Fi-John Chang of NTU's Department of Bioenvironmental Systems Engineering, Prof. Li-Chiu Chang of Tamkang University (TKU)'s Department of Water Resources and Environmental Engineering, students Shun-Nien Yang and Fong-He Tsai, Director of the 5th River Management Office Ting-Hua Chang, and Prof. Edwin E. Herricks of the University of Illinois at Urbana-Champaign.

This study was focused on the Shihmen Reservoir, which provides flood control and over 800 million cubic meters of annual water supply for households, agriculture, and industry in Northern Taiwan. However, the operation of the reservoir faces the dilemma of controlling storms and floods while maintaining a high water level to meet the use demands of households, agriculture, and industry. The research team collected hydrological and meteorological data of 97 typhoons during the past five decades, extracting complex high-dimensional data structures with AI technology for classification and forecasting.

After capturing the complex correlations among typhoon tracks, flood history, hydrological data, and geographical features with AI technology, the team developed a model that is capable of predicting flood patterns and total rainfall two days in advance. Using the projected typhoon track and total rainfall forecast data from the Central Weather Bureau, this model updates the flood forecast synchronously with the latest information as the typhoon progresses so as to enhance forecast accuracy and timeliness.

This research result can be used as an intelligent diagnostic tool for hydrology and meteorology to provide comprehensive and reliable information for reservoir operation. This model can also facilitate the establishment of a self-regulating mechanism for flood prevention and further ensure people's safety and property.



Scan the QR code below to read the article in *Nature Communications*.

# Breakthrough Research in Understanding Meiotic DNA Recombination Published in *PNAS*

Homologous recombination is responsible for repairing DNA double-strand breaks and generating genetic diversity during meiosis. Mutations in enzymes associated with this pathway can lead to cancers. An interdisciplinary team consisting of Prof. Hung-Wen Li (Department of Chemistry) and Prof. Hung-Yuan (Peter) Chi (Institute of Biochemical Sciences) at NTU applied the combination of single-molecule optical microscopy and biochemical techniques to investigate this molecular mechanism. Published in the *Proceedings of the National Academy of Sciences of the United States of America* (PNAS), their latest research elucidates the molecular basis for the requirement of two DNA recombinases during meiotic recombination and sheds light on this little-known process.

During meiosis, a group of enzymes work together to catalyze the genetic recombination between homologous chromosomes to offer genetic diversity. To initiate meiotic recombination, an enzyme first recognizes DNA double-strand breaks, followed by nucleases catalyzing end-resection and generating single-stranded DNA (ssDNA). Next, DNA recombinases assemble on ssDNA to form nucleoprotein filaments for locating homologous DNA and strand exchange. There are two DNA recombinases in most eukaryotes, namely Dmc1 and Rad51. Although they share highly identical amino acid sequences and biochemical properties, both are indispensable in meiotic recombination.

The nucleoprotein filament of Dmc1 is found to be less stable than that of Rad51. To understand the underlying mechanism, the authors performed a



Group photo (from left): Prof. Hung-Yuan (Peter) Chi, Dr. Hsin-Yi Yeh, Wei-Hsuan Lan, Dr. Hao-Yen Chang, and Prof. Hung-Wen Li.

single-molecule experiment to monitor the nucleoprotein filament assembly of Dmc1 in real time. The findings included: (1) Dmc1 nucleates significantly slower than Rad51, likely due to the weaker ssDNA binding affinity of Dmc1; (2) Dmc1 prefers assembling on single-stranded/duplex DNA junction, and this property is evolutionary conserved from yeast to mouse; (3) binding of Rad51 on ssDNA can stimulate Dmc1 nucleation. This directly explains why Rad51 can facilitate Dmc1 filament assembly in meiosis and provides a molecular rationale of why both recombinases are required in meiosis.

Conventional biochemical experiments measure the collective, averaged properties of millions of molecules; the distribution of individual molecules and the details of biochemical reactions are thus typically lost during this process. Single-molecule experiments, however, directly observe the reaction of an individual molecule in a biochemical process and offer powerful tools to understand the mechanism. Combining biochemical experiments and single-molecule microscopy techniques thus presents an effective approach to unveil the complex biology with unprecedented resolution.

Titled “Rad51 Facilitates Filament Assembly of Meiosis-Specific Dmc1 Recombinase” in *PNAS*, this study was conducted by many talented student scientists at NTU on a long-term collaboration project.



Scan the QR code to read the article in *PNAS*.



Dr. Hung-Yuan (Peter) Chi of the Institute of Biochemical Sciences.



Dr. Hung-Wen Li of the Department of Chemistry.



Student Orientation at NTU.

## From Local to Global: NTU Collaborates with Minerva Schools

Minerva Schools at KGI (Keck Graduate Institute), a university headquartered in San Francisco, California, is a respected university in the United States that differs radically from conventional universities. Unlike conventional institutions of higher learning where programs are centered on lectures and knowledge transmission, Minerva Schools' guiding principle is to "nurture critical wisdom for the sake of the world," and it focuses on cultivating the students' ability to think critically, work collaboratively, communicate effectively, and be creative and innovative. At Minerva, there is no campus infrastructure or set classrooms, and students learn digitally via an online platform and live in residential communities to be integrated with the local city. Throughout the four-year program, students are

offered the opportunity to live in seven cities around the world in which they are constantly stimulated and challenged to grow. This global experience allows Minerva students to not only acquire fundamental life skills by living in the community but also access a wide range of experiential programs that extend their learning into the urban context.

NTU began its collaboration with Minerva since 2018, and Taipei became officially listed as the seventh global residential location the following year. After Minerva students complete their semesters in San Francisco, Seoul, Hyderabad, Berlin, Buenos Aires, and London, Taipei is the last stop of their academic journey. This year, the first batch of Minerva students will be graduating after completing their semester in Taipei.

### **Multicultural Insight and Mutual Learning**

To expose students to the rich cultural diversity of Taiwan as well as nurture the students' intellects across multiple disciplines, NTU's Office of International Affairs recruited professors and experts from different fields to host workshops

focusing on local challenges and cultures. The goal of this program is to encourage students to meaningfully engage with and contribute to the local community. The program includes the following courses: “Tastes of Taiwan” (Lecturer: Prof. Chau-Ti Ting, Department of Life Science), “Cycling City” (Lecturer: Prof. Shuwei Huang, D-School), “Taiwanese Tea - From Land to Cup” (Lecturers: Prof. Sheng-Lin Chang, Graduate Institute of Building and Planning; Prof. Po-Yi Hung, Department of Geography; Prof. Shu-Yen Lin, Department of Horticulture and Landscape Architecture; Joann Chu, Industry Advisor), “Modern Urbanscape and East Asian Culture” (Lecturer: Prof. Tsung-Yi Huang, Department of Geography), “Non-Profit Management” (Lecturer: Prof. Helen K. Liu, Department of Political Science), “Performing Arts in the Digital Era” (Lecturer: Prof. Szu-Wei Chen, Graduate Institute of Musicology), “D-School Project Supporting Program” (Lecturer: D-School), “Edible Care and Place-Making” (Lecturers: Prof. Shu-Mei Huang, Graduate Institute of Building and Planning; Prof. Yi-Yi Chen, Department of Social Work), and “SDGs International Study Group” (Lecturer: Center for Teaching and Learning Development). These structured co-curricular courses not merely delved deeply into specific topics and issues but also offered team-based activities and work sessions that allowed students to learn from each other and incorporate the acquired concepts and materials in real-life scenarios. Seventy NTU students were selected out of 180 applicants to participate in these courses, and a total of 150 NTU and Minerva students learned together in this program.

The workshops exposed students to a wide array of learning methods, and thanks to the dedicated efforts of the professors, the students from both institutions were able to visit areas and communities that had been less accessible. For example, in the course “Edible Care and Place-Making,” students visited the Toad Mountain Community near NTU to learn how to cook local cuisine and gain insights into the development and history of the community. For “Taiwanese Tea - From Land to Cup,” students

visited Pinglin, a place famed for producing tea, to get a sense of the past and future outlook of the tea industry in Taiwan. Students also cooked tangyuan, or sweet glutinous rice balls, at the Kitchen of Science in National Taiwan Science Education Center to understand the concept of seasonality in Chinese cuisine, the importance of rice in Chinese culture, and the process of fermentation. For “Modern Urbanscape and East Asian Culture,” Prof. Huang led students to Wanhua District to highlight the importance of urban development and discuss issues concerning homelessness. Students also had the chance to visit local temples and immerse themselves in Taiwan’s religious culture. During the sessions of “SDGs International Study Group,” students were given complete freedom to select any topic of discussion and reading materials related to the United Nation’s sustainable development goals (SDGs). Through discussion and debate with their peers, students were trained to identify the key problems and come up with possible solutions.

Throughout the three-month program, students from both sides had the privilege to participate in numerous site-specific workshops and leverage the knowledge they had learned in class. Besides, this experiential program fostered constructive dialogues and encouraged students to view things from different perspectives. In this process of cultural immersion and mutual learning, students not only acquired a deeper understanding of Taiwan but also gained a multicultural insight into local and global issues.



Students are challenged to create their best tea recipe at the “Taiwan Tea Workshop” workshop.

# NTU's College of Law Joins THEMIS Network

NTU's College of Law has been actively making connections with distinguished law schools worldwide to promote international academic exchanges and collaborations. Given this goal, NTU's College of Law joined the international academic alliance THEMIS Network in October 2019.

The THEMIS Network was founded in 2006 and currently has 10 members, including the University of Bocconi School of Law, the ESADE Law School of the University of La Monjore, the School of Law of the Free University of Berlin, Universiteit Maastricht, Universidade Nova de Lisboa, Singapore Management University, Universität St. Gallen, Université Paris Est Créteil Val de Marne, Victoria University Wellington, and the Wirtschaftsuniversität Wien. Every two years, member schools gather at the THEMIS Network's Biennial Conference to discuss the academic cooperation policy of the organization.

The THEMIS Network offers an academic program for graduate students, titled the "Joint Certificate in International and Business Law." The program is divided into three phases. During the first phase, students study abroad at a member school for one semester. They must take at least 30 ETCS credits (approximately 15 NTU credits) and pass at least 24 ETCS credits (approximately 12 NTU credits). In addition, the courses must be relevant to international law or commercial law and be approved according to THEMIS Network guidelines and regulations. During the second phase, students participate in internships at international law practice-oriented firms, non-profit organizations, or corporate legal departments. Students must work at least full-time for six weeks or part-time for eight weeks to be certified. In the final phase, students are required to participate in at least one THEMIS Seminar. Every year, member schools take turns hosting

the seminar to discuss different themes and topics. Once students complete the aforementioned three phases and meet the graduation requirements of their home university, they will be awarded a certificate from the THEMIS Network.

NTU's College of Law hopes this platform will encourage students to engage in more international academic exchanges. Through this program, students can expand their knowledge about international law and commercial law and also broaden their horizons as they immerse themselves in different cultures. Joining the THEMIS Network not only marks a new milestone but also creates more opportunities for future international collaborations and exchanges.



NTU's College of Law joins the THEMIS Network.



NTU's College of Law.



NTU Law Library.



GMBA students visit CHT's satellite communications center.

## GMBA Students on a Field Trip to Chunghwa Telecom

The NTU GMBA Program is a master's program in business administration with an all-English curriculum. Launched in 2006, it aims at cultivating professional managers with a global perspective. The program provides comprehensive management training with core courses, international exchange programs, dual degree programs, and corporate internships that enhance the students' global outlook and practical skills.

On May 1, 2020, Chunghwa Telecom (CHT) staff welcomed GMBA students to its international satellite communications center on Yangming Mountain. The carefully-organized visit of the site started with a presentation on CHT's extensive services. Starting out as a telecommunications company, CHT has expanded and become Taiwan's largest communications service provider, offering international and domestic data services, ICT planning, and SI services. More recently, CHT established a Global eXpress

Center (GXC) to provide management, enterprise network services, and smart applications, while demonstrating expertise in satellite transponder capacity. Much like the ambitions of the GMBA Program, the company's impressive range of services and innovative solutions have taken them to the international stage.

To further motivate the GMBA students, CHT organized a project by requesting the students to design marketing plans for two products: an electric battery-charging infrastructure and an e-VAT refund service. These real-life cases presented a great challenge and opportunity for the GMBA students to demonstrate their capability with the quality of their results. Comments were given by CHT's former president after the students presented their initial ideas about possible solutions and marketing approaches.

The trip continued with a short tour of the site to experience the impressive satellite dishes, the first ones in Taiwan that were built in the 1990s. Ever the gracious host, CHT sent the students back with a thoughtful gift and helpful insights for the project, with every student anticipating to showcase these results at the end of the semester.

## 臺灣大學公共衛生學院 抗 COVID-19 說明會

台灣大學公共衛生學院

抗 COVID-19 說明會

國立臺灣大學 公共衛生學院  
College of Public Health, National Taiwan University

2020-03-30



Prof. Chang-Chuan Chan, Dean of the College of Public Health, at the opening of a briefing.

## COVID-19 Prevention Briefings Held by NTU's College of Public Health

NTU's College of Public Health has been hosting regular COVID-19 Prevention Briefings every Monday since last February 10. The sessions are streamed on Facebook and YouTube, attracting thousands of viewers who are interested in learning more about the pandemic from the perspectives of public health, medicine, and pharmacology.

The briefing sessions have covered a wide range of topics. In the early stage of the pandemic, the briefing focused on COVID-19 symptoms and infectivity, the advocacy of the Public Health Specialist Act, and recommendations for disease prevention, specifically with respect to school reopening. When there was a spike in the number of cases, the briefings focused on prevention measures for individuals, the environment, and campuses; gave recommendations on testing scale; promoted social distancing measures; provided interpretations and predictions on pandemic patterns; illustrated the demand for public health professionals; and reviewed prevention measures for long-term care facilities. When the disease was largely brought under control in Taiwan, the briefing topics turned to keeping the disease in check while maintaining a normal lifestyle, continuing the

nonpharmaceutical interventions (NPIs), building a resilient medical system as the new norm, and so forth. The briefings were covered by dozens of digital and print media outlets every week.

Besides the professors of NTU's College of Public Health, many experts were invited to the briefings to share their professional knowledge and opinions on various topics. On one hand, professionals from the NTU Hospital and the College of Medicine gave two talks, "Does Taiwan Need Mass Testing at this Point?" and "The Battle against COVID-19 in Singapore: Challenges for a Model Nation." Some faculty members from the College of Pharmacy, on the other hand, shared general information with the public on such topics as "Instructions for COVID-19 Clinical Medicine" and "How Pharmacists Keep the Public Safe during the COVID-10 Pandemic." Last but not least, domestic vaccine manufacturers shared information on the current development of a COVID-19 vaccine around the world.

The COVID-19 Prevention Briefings organized by NTU's College of Public Health have provided in-depth and well-established information and opinions on epidemic prevention from a scientific perspective. The purpose of hosting such briefings is to add an academic dimension that complements and supports the policies formulated by Taiwan's Centers for Disease Control, offering guidance and advice to the public while sharing Taiwan's achievements with the world.



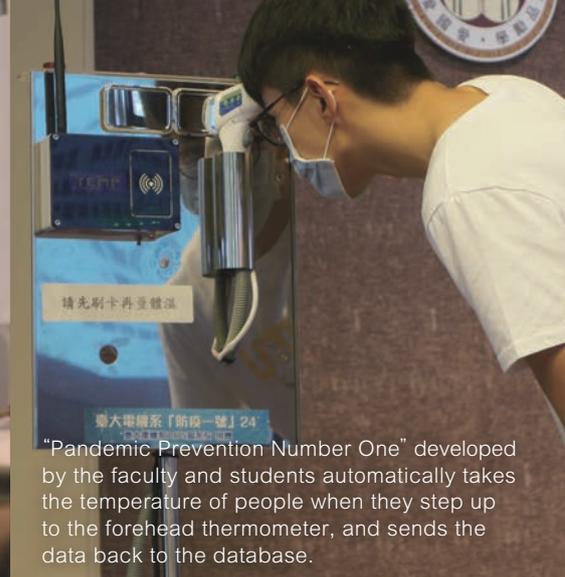
Please scan the QR code for recordings and media coverage.



Entry into the campus is limited to NTU members and authorized visitors



"Pandemic Prevention Number One" developed by NTU faculty and students.



"Pandemic Prevention Number One" developed by the faculty and students automatically takes the temperature of people when they step up to the forehead thermometer, and sends the data back to the database.

## NTU's Resolve to Prevent COVID-19 from Spreading

As NTU ushered in the new semester in March, many preventive measures were implemented to protect students, faculty, and staff from the threat of COVID-19. Limits were set on mass gatherings, and everyone who entered the campus had to fill out a questionnaire about their health status. By such measures, NTU has been able to safeguard the health and safety of all its members, yet the campus scene has been drastically transformed.

Prior to the COVID-19 pandemic, the NTU campus was open to the public. Residents from the nearby neighborhoods enjoyed taking strolls along the tree and bush lined boulevards on the park-like campus or jogging around the track on the sports field. But, starting on March 30, entry into the campus was restricted solely to NTU students, faculty, and staff. All NTU members and authorized visitors, either on foot, riding a bicycle, or driving a car, had to show their ID cards for inspection before entering the campus. The sight of people zipping in and out of the campus on their bicycles became a scene from the past.

Besides reducing the number of visitors, NTU also set limits on mass gatherings on campus. Starting on April 6, all classes with 100 or more students were moved online. The NTU Azalea Festival, which features NTU's most important annual Department Expo, was also streamed on

YouTube. The audience could join real-time Q&A sessions with the department presenters via chat rooms alongside live-streamed videos.

As technology has made the digitization of classes and events possible, so has it facilitated the improvement of COVID-19 preventive measures offline. A standalone and contact-free temperature-taking apparatus has been set up at many building and classroom entrances. Named "Pandemic Prevention Number One," it was developed by Dr. Jen-Sen Liu, a technical specialist of NTU's Department of Electrical Engineering. The apparatus automatically takes the temperature of people when they step up to the forehead thermometer, significantly reducing manpower needs and contagion risks. The system was recently upgraded by the Computer and Information Networking Center, the Department of Electrical Engineering, and the Office of General Affairs to version 1.6. The addition of antennas and Bluetooth empowers the system with better data collecting and delivering capabilities, while an LCD screen and buzzer make it easier to identify people with fevers. The system is the fruit of the cross-departmental collaborations among NTU faculty, staff, and students.

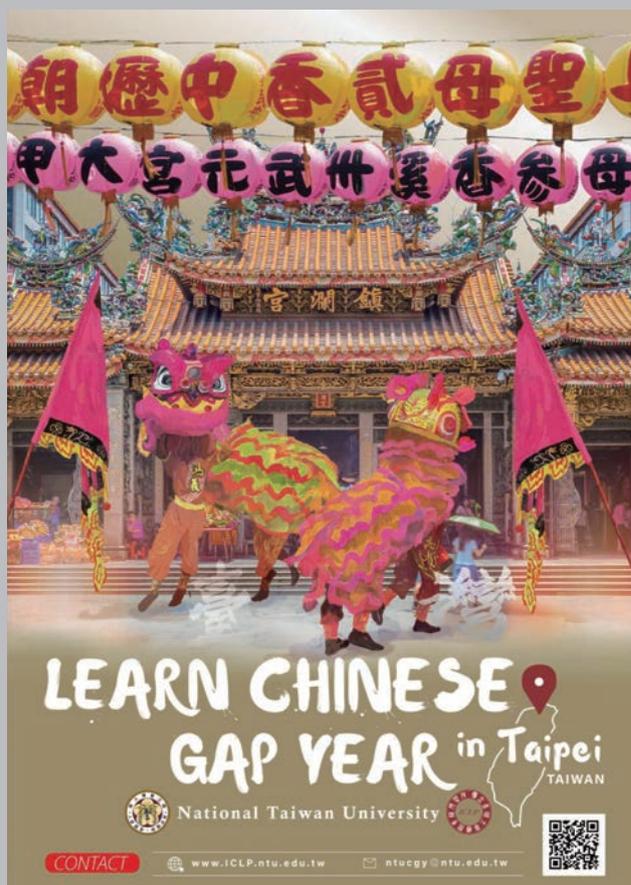
Although the campus was reopened in early June, it is much quieter now with fewer people and less traffic. Much work and effort have gone into epidemic prevention, demonstrating NTU's resolve to keep COVID-19 from spreading, ensure the safety of every NTU member, and fulfil its social responsibility by sharing this fruitful experience with society and the world.

# Announcing the Launch of Chinese Gap Year in Taipei

NTU's International Chinese Language Program (ICLP) is excited to announce the launch of the Chinese Gap Year (CGY) in Taipei, a nine-month gap year program for recent high school graduates who want to study Chinese, explore Taiwan's culture and society, and seize the opportunity to develop and grow.

Founded by Stanford University in 1962, ICLP has been providing world-class Chinese language courses to students and scholars from around the world for nearly 60 years. With the launch of CGY, a new chapter of ICLP's history is being written. This fall, recent high school graduates from different parts of the world will gather on the NTU campus for nine months of intensive Chinese instruction, immersive cultural experiences, and incredible opportunities for personal growth. This is likely to be the first time they leave home for an extended period of time, and what better place to pick than Taiwan, a country known to be safe and friendly with a lot to explore!

From experiencing the bustling night markets and hiking up Elephant Mountain in Taipei, to exploring the indigenous communities tucked along the east coast and discovering tea plantations perched along the peaks of Alishan, students will have countless opportunities to dive into local communities while using their new Chinese skills. They will meet local and international students from the top university in Taiwan to share their experiences, try new things together, and discover the world while gaining precious insight into the people they want to become. Moreover, as the calendar turns to June 2021 and the students prepare to return home to



NTU ICLP's Chinese Gap Year Program.

attend university, they will have the confidence to know that they have not only boldly stepped outside of their comfort zone, but also thrived in a very new and foreign environment.

CGY is open to students of all Chinese proficiency levels who are willing to work hard, challenge themselves, and take chances. We welcome our friends, partners, and alumni within the NTU community to share our program with any student who may be interested. Last but not least, we hope these brave students can join us in September for a meaningful and memorable nine months here at NTU!



Interested students can visit CGY's website at [www.ICLP.ntu.edu.tw](http://www.ICLP.ntu.edu.tw) or contact us directly at [ntucgy@ntu.edu.tw](mailto:ntucgy@ntu.edu.tw).



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