



## Aiming High with Thriving Progress in NYCU cooperation with its Benchmark Universities

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– An Open Letter to all faculty, staff, students, alumni and friends –

Dr. Chi-Hung Lin, President National Yang Ming Chiao Tung University, July 2023

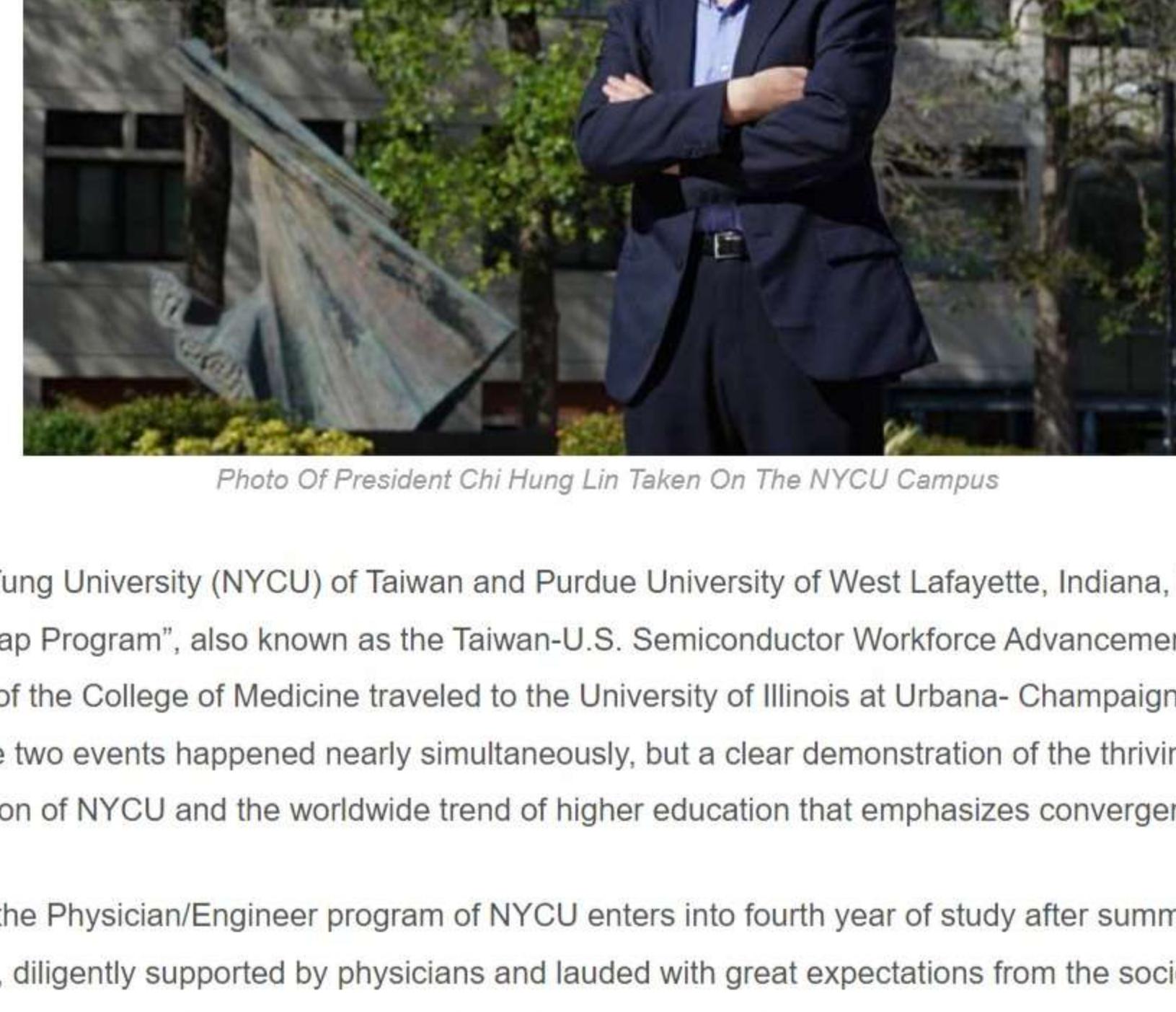


Photo Of President Chi Hung Lin Taken On The NYCU Campus

Just when National Yang Ming Chiao Tung University (NYCU) of Taiwan and Purdue University of West Lafayette, Indiana, U.S. signed an agreement on the "Taiwan-U.S. Semiconductor Talent Leap Program", also known as the Taiwan-U.S. Semiconductor Workforce Advancement Program (SWAP), the NYCU students from the Physician/Engineer Program of the College of Medicine traveled to the University of Illinois at Urbana- Champaign (UIUC) to participate in clinical teaching courses. It is of no coincidence that the two events happened nearly simultaneously, but a clear demonstration of the thriving progress of international cooperation of NYCU. It is well aligned with the vision of NYCU and the worldwide trend of higher education that emphasizes convergence and deep collaborations globally.

The first cohort of medical students in the Physician/Engineer program of NYCU enters into fourth year of study after summer; it is a nontraditional program but enthusiastically welcomed by students, diligently supported by physicians and lauded with great expectations from the society. In this field, UIUC's Carle Illinois College of Medicine (CICOM) is considered as a pioneer because it is the first College of Medicine in the U.S. with a clear vision to provide engineering-driven medical education and clerkship; it recruits postgraduate students emphasizing STEM and engineering background. Now in its eighth year, UIUC CICOM graduates are widely favored by major medical centers and hospitals when applying for residency, which is a testimony of success in the forward-looking education for the future medicine.

With the shared vision and common goals, it is natural for NYCU College of Medicine to be collaborating with UIUC CICOM in engineering-driven future healthcare. Following the delegation visit of NYCU College of Medicine to the UIUC campus last September, a reciprocal visit of UIUC to NYCU took place in April this year. Moreover, Deans of NYCU Colleges of Electrical & Computer Engineering (ECE), Computer Science (CS), Engineering (ENG) and Industry Academia Innovation School (IAIS) also visited UIUC Grainger College of Engineering in September this year. The purposes are clearly tied to the innovation and technology-driven healthcare. Among many exciting topics discussed, the immediate activity that benefits students and can be easily carried out is the visit of NYCU students to UIUC this summer as a starting point. I believe that in the following years more teachers and students will participate in the exchange activities between our two universities to co-create a vision for the future medicine and healthcare.



The interwoven education of medicine (or healthcare) and engineering is not a literal link, but involves the redesign of basic, clinical and cross-domain courses. The two medical colleges will collaborate on innovative and problem-based learning (PBL) plus clinical practice in engineering medicine. It will also develop partnerships in research areas such as neuroscience, cardiovascular disease, smart hospitals and cancer. In the coming October this year, the Biomedical Group in NYCU will lead another delegation to visit UIUC CICOM to attend workshop and to engage in deep discussion of cooperation and exchanges between the two universities. I believe that with the integration of micro-electro-mechanical semiconductor engineering and medicine in NYCU, as well as the R&D capacity of smart medicine for the elderly society, both universities will reap fruitful results via shared experience and co-creation.

In addition to UIUC, the place I visited the most this year was Purdue University. Most recently, I was invited by the Taiwanese Consulate General Office in the United States to visit Purdue and participated in the high-tech forum with Ambassador Hsiao Bi-khim, the representative in the United States. The Governor Holcomb of the State of Indiana, where Purdue University is located, hopes to develop Purdue into an important semiconductor base in the United States. This vision presents an excellent opportunity for cooperation between NYCU and Purdue University, because semiconductor technology is a niche area of NYCU and Taiwan.

In a few months of time, I have met with President Mung Chiang of Purdue University three times, our two universities reached a consensus to jointly cultivate global semiconductor talents by signing the SWAP Agreement in June this year. NYCU of Taiwan and Purdue of United States, the two major semiconductor universities, will work together in the form of an alliance to develop a semiconductor talent cultivation system that is globally adoptable. In addition to student exchange, cooperative research and dual degrees, the two sides will also cooperate in the second half of this year to launch an open semiconductor online course, with various practical, entrepreneurship and vendor internship courses on the NYCU campus, the outcomes will definitely attract international attention.

In the past, we often looked at the high-tech industry only from the mere perspectives of science and technology alone, but with the changes in international geopolitics, science and technology have also crossed national borders and transcended the gap amongst people and policies that ultimately bring impacts on society stability, diplomacy and mutual trust. I came to a deep realization while attending a forum organized by the Krach Institute for Tech Diplomacy at Purdue University in June, that we cannot ignore the connections and effects in other related aspects resulting from the advancement of science and technology, such as technology laws, finance management, social economy, etc. Consequently, as a higher education institution we must conduct teaching and research in these highly selective but relevant fields critical to world's industrial transformation.

It has been a very productive year for I have visited and established close partnership with two world class universities, the University of Illinois and Purdue University. I have also witnessed the profound changes in the overall academic development in NYCU. The excellent tradition of NYCU in biomedical science and microelectronic technology continues to thrive with increasing connection with the current trend of artificial intelligence, high-speed computing and frontier semiconductor research and applications. We are aiming high in our continuing pursuit for academic excellence and I am thrilled to see the thriving progress of our faculty and students, along with the co-creation spirits of our industrial and international partners, all of which are in line with the vision of the newly merged NYCU.

In just one year, I am delighted to report that NYCU has accomplished a great deal by having established a substantive cooperation network with two world renowned benchmark universities that NYCU has set out to follow in our SPROUT 2.0 projects supported by the Ministry of Education. The success of these endeavors is owing to the diligent work of our administrative team which I would like to acknowledge. We are confident that through substantive exchanges and cooperation in both semiconductor and innovation-driven healthcare, we will put NYCU on the international map and let Taiwan's advantages be revealed at all corners of the world.



Photo Of The Managing Team Of NYCU Led By President Chi Hung Lin

(front Center)