

GOOD HEALTH AND WELL-BEING

Ensure healthy lives and promote well-being for all at all ages.
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5537



Publications in SCOPUS

576



Course units

16%

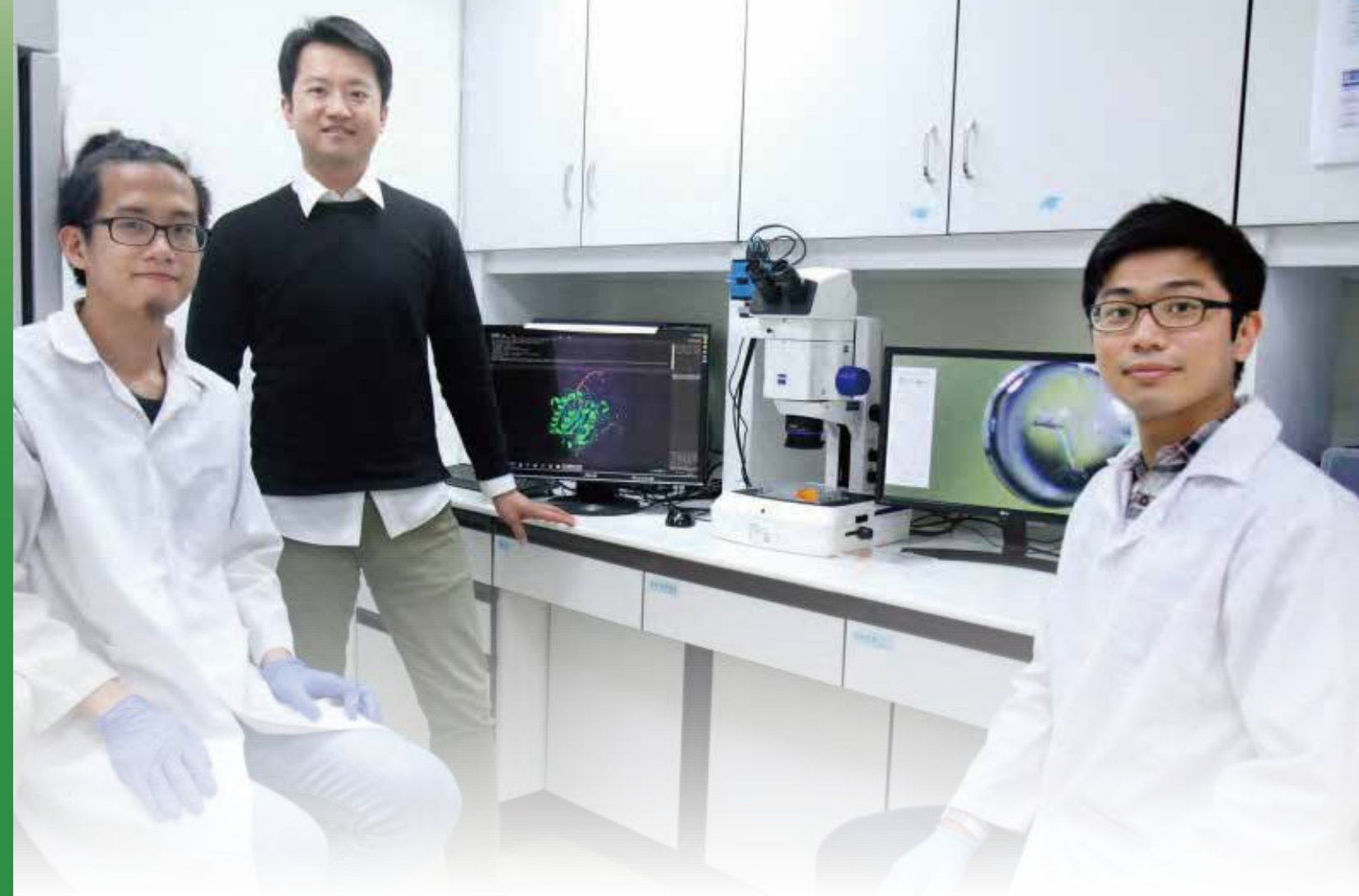


Percentage of all Taiwan publications

12195



Students who chose the course units



Research

Structural Biology Research Group Helps Address Cancer Drug Resistance

The structural biology research group led by Associate Professor Yu-Yuan Hsiao from the College of Biological Science and Technology, in cooperation with Professor Jhih-Wei Chu, used X-ray protein crystallography to analyze the complex structure of the APE1 protein and DNA. They also sought to learn how the activity of the APE1 protein in the human body is affected by cancer cells, taking on functions such as repairing the DNA of cancer cells damaged by drugs and developing their resistance to DNA-damaging anti-cancer agents. In the future, if structure-based drug design can be used to block the activity of APE1, we may stop certain cancer cells from becoming drug-resistant. These research findings were published in the leading international journal *Nature Communications*, attracting a great deal of attention.

Research

Improving the Elderly's Health and Quality of Life Through "Value-Oriented and Holistic Care"

The research team led by Liang-Kung Chen, Taipei Municipal Gan-Dau Hospital Superintendent and NYCU Professor, worked with medical centers, community clinics, and local clinics and health centers to conduct a one-year randomized control trial study. A total of 398 elderly people with three or more chronic illnesses and an average age of 72.3 years were selected to participate in the study. The study showed that holistic care and diverse life interventions significantly improved the elderly's physical fitness and cognitive functions, in addition to maintaining their quality of life. Moreover, this group of elderly people had significantly better control over their chronic illnesses and decreased instances of inappropriate drug use compared to the control group. These findings were praised by the prestigious medical journal *Lancet Healthy Longevity*, which recommended its international readers to follow this Taiwanese research design in the future to verify the effectiveness of holistic care.

Gene Therapy Brings New Opportunities to Treat Coronary Sclerosis

Coronary sclerosis is a chronic inflammatory disease caused by the buildup of fats in the artery walls, leading to the formation of plaques, which block blood flow. Unfortunately, current treatment methods are limited. A Taiwan-US research collaboration between NYCU, Taipei Veterans General Hospital, and the University of California, San Diego found that "mRNA methylation" may be one of the causes of coronary sclerosis. The research team used gene therapy to inhibit the "methyltransferase" of blood vessels and found that this method could effectively control intravascular inflammation and reduce the occurrence of sclerosis, providing a new opportunity for the prevention and treatment of coronary artery diseases. These important findings have been recognized and published by the journal *Proceedings of the National Academy of Sciences of the United States of America* (PNAS vol. 118).

Social Impact

Integrating Humanities, Health, and Technology to Become Good Community Partners

A research team led by Distinguished Professor Heng-Hsin Tung of the Department of Nursing, Professor Yea-Ru Yang of the Department of Physical Therapy and Assistive Technology, and Professor Wen-Liang Chen of the Department of Bioscience and Technology is implementing an "Elderly Fitness Club" program promoted by the Health Promotion Administration. This program aims to establish community-based centers, bring in professional care for the elderly, and provide immediate care and guidance from sports professionals, in the hopes of delaying aging and the onset of disability as the elderly improve their physical activity. Collaborating with the TSMC Charity Foundation, this program has established community care stations on the Chiaotung and Boai campuses in Hsinchu. It also utilizes neighborhood resources (Guangming Village and Lushui Village of East District, Hsinchu City) to encourage elderly people in the neighborhood to participate. Through diverse professional health services and education offered by the university, it is hoped that the community can be invigorated.



NYCU Students Pray for the Pandemic to End on Diwali

A November 26 Diwali event was organized by the Yangming Campus International Student Association. The organizer and host was Indian student Sakshi Saraswat, who is currently in the Environmental Technology Ph.D. program. Through rituals, candles, and oil lamps, Diwali symbolizes the victory of light over darkness. Through the exchange of different cultures, NYCU students and faculty members, as well as the local community, can learn to respect different ethnic groups and traditions from around the world. Together, participants at the event prayed for Taiwan, India, and the world, along with their hope that the pandemic will end as soon as possible.

國際高等人力培訓外籍生獎學金計畫
「友邦政府中高階官員培訓專班」簽約典禮



Student Cultivation

Cultivating Global Health Leaders

Since it was established in 2003, the NYCU International Health Program has trained a number of health officials and decision-makers around the world. The program, along with the Research Center for Epidemic Prevention Science, were commissioned by the International Cooperation and Development Fund to hold an online training course on the national health system on November 8–9, 2021. In total, 19 supervisors, developers, physicians, and nurses from the Ministry of Health and Welfare and hospitals in Latin American, European, Asian, and African countries attended the course. Through online discussions, participants learned public health concepts, new trends, and practical techniques for handling non-communicable and communicable diseases. The course also introduced global health developments and practices to help the public health officials of Taiwan's allied countries strengthen their domestic health and pandemic prevention systems. During the discussions, participants actively engaged with the suggested strategies to deal with the COVID-19 pandemic, including asking about Taiwan's vaccine and mask policies. Participants also provided positive feedback on the two analysis software systems provided through the course, Jointpoint and SAS OnDemand, noting that they allow them to collect and analyze big data more effectively, which helps tremendously in supporting their government decision-making processes.

Oral Health Service Team: Caring for the Oral Health of Children and Local Residents

It has been over 40 years since the Oral Health Service Team (the Team) was founded in 1979. The team has traveled from the north to the south of Taiwan, from mountainous to seaside regions, and from rural to urban areas to provide its services. The Team is mostly comprised of freshman to junior students from NYCU's Department of Dentistry. It provides free oral health education for the public every year. During summer vacation, the team also visits remote villages to provide free checkups and health education, helping local residents and schoolchildren establish good oral hygiene and maintain their oral health.

Stewardship

Improving Faculty Members and Students' Quality of Life and Physical & Mental Health

The NYCU Libraries have continually organized art and cultural exhibits as well as themed book fairs and film festivals. In 2021, the Libraries provided a venue for 11 exhibitions (2 at the Yangming campus, 9 at the Chiaotung campus). No matter the format, the exhibitions served to make art more accessible to students and faculty members, improving their quality of life. The Libraries also continue to organize various book fairs and film festivals. In 2021, the Libraries of the two main campuses held a total of 19 book fairs (12 at the Yangming campus and 7 at the Chiaotung campus) and 6 film festivals, encouraging visitors to gain knowledge and receive emotional healing through reading. In addition, in 2021, the Libraries screened a total of 72 public presentation edition films simultaneously at the Chiaotung campus and Tainan campus, providing a free leisure area for readers to relax.

Campus Clinic Provides Medical Services for Faculty Members, Students, and the Public

In order to make the medical services more accessible to teachers, students, and communities, the Chiaotung campus established a campus clinic, offering medical consultation since 1974, to provide professional medical services for teachers, students, and the public. Gaining strong medical support from the Yangming campus, the services provided by the campus clinic are diversified after the merger.