Early detection of cervical cancer helps improve quality of life: NCKU study

NCKU Press Center

[Tainan, Taiwan, January 13, 2014]

“Early detection of cervical cancer not only saves lives, but also avoids living with poor quality of life,” revealed Dr. Jung-Der Wang, professor of public health from College of Medicine at National Cheng Kung University (NCKU), southern Taiwan.

The research team led by Dr. Wang has abstracted data of 22,543 new cases of invasive cervical cancer (ICC) from the Taiwan National Cancer Registry to estimate the lifetime survival function.

Also, a consecutive, cross-sectional sample of 421 patients with ICC or carcinoma in situ (CIS) has been included to measure the quality of life (QOL).

The ratio of QOL score functions for ICC and CIS patients were summed up over lifetime to obtain the duration of suffering from dissatisfied health-related quality of life (HRQL).


Prof. Wang noted, “In comparison with invasive cervical cancer, early detection of cervical neoplasm at pre-cancer stage not only avoids 6.48 years of life loss, but also prevents reduction in HRQL in the long-run”

“When we detect a CIS case, it takes only about 10 minutes to remove the lesion and the patient recovers completely without any further discomfort,” according to Dr. Ya-Min Cheng, the leading gynecologist who invited these patients to join the study.

She also said, “If it is diagnosed at the CIS invasive cancer stage, the patient usually must go through surgery or chemotherapy and radiotherapy. The patients’ quality of life is impaired, including that of sexual life.”

“We are very pleased to inform all our people that early detection of cervical cancer not only saves lives, but also avoids living with poor quality of life, and we have quantified the numbers of years with poor quality of life,” according to Cheng.
NCKU’s Magic School crowned the greenest building on the planet
NCKU Press Center

[Tainan, Taiwan, January 23, 2015]

The Y.S Sun Green Building Research Center at National Kung University (NCKU), southern Taiwan, has recently been hailed by the Godfather of Green Building Jerry Yudelson as the greenest building in the world, the university revealed today.

“The best energy-efficiency performer profiled by Yudelson and Meyer is the YS Sun Green Building Research Center at National Cheng Kung University in Taiwan. Colloquially known as the Magic School of Green Technology, it uses just 40.43 kWh per sq meter annually,” according to Garrett Hering’s story in the Guardian.

NCKU professor of architecture Lin Hsien-Te who is the major designer of the building said, “The three-story 4800 square meter building utilizes 13 different sustainable building techniques in order to achieve a 65% energy savings and a 50% water savings over typical office buildings.”

Lin read the news from the Guardian and said, the acknowledgment from Yudelson is very inspiring. His words are solid proof to Taiwan’s success in green building.

In The World’s Greenest Buildings - Promise Versus Performance in Sustainable Design written by Jerry Yudelson and Ulf Meyer, there are 15 greenest buildings selected from the U.S.A., the European and the Asia-Pacific region respectively (45 buildings in total) as the global benchmark for green buildings.

The book provides a convenient reference for fact-checking the rising number of claims by building owners and architects worldwide that their green buildings are the greenest of all.

The Magic School of Green Technology (MSGT) which is first zero-carbon building in Taiwan achieved the highest ratings from Taiwan's Energy, Ecology, Waste Reduction and Health (EEWH) system, as well as from the US Green Building Council's LEED rating system.

“Alter just under a year of operation, the MSGT is showing an EUI of 40.43 kWh/sq m/year, considerably less than Taiwan's medium-rise office buildings which consume 125 kWh/sq m/year on average,” according to the book.

It also said, “The efficacy of the design and systems were thoroughly researched by four senior professors and twelve NCKU PhD and master's degree students, making it perhaps the most extensively researched green building project in Asia.”

Among the selected green buildings in the Asia-Pacific region, there were 5 from Japan, 5 from Australia, 2 from Singapore, 1 from Mainland China, as well as Taiwan’s only candidate, the Y.S. Sun Green Building Research Center.

These figures show that the NCKU green building is the most energy conserving among the 45 greenest green buildings in the world. In other words, it can also be known as the “first green building” among the World’s Greenest Buildings.
Taiwan Comprehensive University System announces its new president
NCKU Press Center

[Tainan, Taiwan, January 14, 2015]

National Sun Yat-Sen University (NSYSU) president Dr. Hung-Duen Yang will serve as the president of Taiwan Comprehensive University System (TCUS), a research-led university alliance in Taiwan, announced TCUS at a press conference held at National Cheng Kung University (NCKU), southern Taiwan, on January 14.

NSYSU president Yang will succeed NCKU president Hwung-Hweng Hwung and take office in February.

Yang said, “This year TCUS will visit TU9, the alliance of leading Institutes of Technology in Germany, and the University of Texas System in America, reaching out for international alliance.”

Hwung said, during my term we are honored to have Dr. Paul Ching-Wu Chu as the Honorary Chancellor of TCUS and under his leadership we had initiated several programs during the past four years.

A joint admission program for sports talents was carried out in 2013 allowing graduate students in the four universities to have more options in taking courses, according to Hwung.

“We had organized an International Summer School (ISS) program sharing academic resources and working on providing quality higher education options to both domestic and international students,” he said.

Pooled the strengths of the four universities, transnational research teams were launched earlier as commitment to strengthen the institute’s research excellence, Hwung added.

“Our next step is to seek international alliance. We will reach out for more international academic collaboration with university alliance in America and European countries as well,” according to the new TCUS president Yang.

He also said that TCUS will also continue to carry out the joint admission program, expanding from master level to doctoral level.

Based on the strengths of the universities, ISS will kick off in July. The students can receive discounted rates and course credit, according to Yang.

Established in 2011, the alliance was formed by National Cheng Kung University (NCKU), National Sun Yat-Sen University (NSYSU), National Chung Hsing University (NCHU) and National Chung Cheng University (NCCU).

The four member universities of TCUS are all in southern or central Taiwan forming alliance to integrate educational resources in that part of Taiwan and to drive a comprehensive development of various industries in Taiwan.
Jiang Sixian, chairperson of the university council at Shanghai Jiao Tong University (SJTU) led a delegation to visit National Cheng Kung University (NCKU), southern Taiwan, on January 16 to deepen mutual understanding and broaden the engagement between two universities.

NCKU president Hwung-Hweng Hwung extended his warm welcome to the delegation saying, “Both SJTU and NCKU are prestigious universities aiming to cultivated young talents.”

Knowing president Hwung is a well-recognized hydraulic expert, Jiang invited Hwung to visit SJTU, hoping to carry out academic exchange in the field of hydraulic and ocean engineering.

Jiang, who was visiting Taiwan for the first time, praised NCKU for being a distinguished university in Taiwan and said he looked forward to furthering cooperation with NCKU.

Hwung talked about the university’s profile and said that NCKU was ranked top alongside the John Hopkins University and Duke University for having outstanding achievements in academia-industry collaboration.

Jiang said, SJTU is aiming of becoming a comprehensive, research-oriented and internationalized world-class university.

Jiang also said that he was impressed by the international profile of NCKU and acknowledged the future cooperation which promises to yield good results.

He told President Hwung that he expects more student exchange can be arranged in the coming future.

SJTU as one of the higher education institutions which enjoy a long history and a world-renowned reputation in China is a key university directly under the administration of the Ministry of Education (MOE) of the People's Republic of China and co-constructed by MOE and Shanghai Municipal Government, according to Jiang.
NCKU delegation to attend World MUN 2015

NCKU Press Center

National Cheng Kung University (NCKU), southern Taiwan, will organize a student delegation to the World Model United Nations (World MUN) 2015 in Seoul, South Korea.

This will be the first time for NCKU students to attend the World MUN. Experts are invited to help students prepare the presentation.

Currently, the students are taking courses for training which will end at January 25.

Model United Nations, also referred to as Model UN or MUN is a simulation of real-life UN aiming to educate students about diplomacy, the United Nations, its structure and objectives and international relations in general.

Every year around 2,500 college students from over 80 countries attend World MUN in a different location around the world.

Also, MUN club is set up on campus to offer students who are interested in MUN. Many club members have participated in small-scale MUN or attended World MUN before.

An audition is organized by the club in June last year to recruit delegation members for World MUN 2015.

The members are included students from departments of foreign language, law, material sciences, systems and naval mechatronic engineering, aeronautics and astronautics.

The delegation has finished three-month training and attended the Pan-Asian states NTU Model United Nations Conference.

NCKU delegation is assigned to present Malaysia and Fiji in World MUN 2015.

The training courses include skills of public speaking, debate, and lectures of UN organization, statutes, international relations, law and other related laws.

Copyright 2015 National Cheng Kung University
NCKU develops stable aquaponics system

NCKU Press Center

National Cheng Kung University (NCKU) Department of Life Sciences accepted a commission from domestic companies to develop a stable aquaponics system in which invertebrates (fishes and snails) and vegetables can be grown simultaneously, revealed the university today.

A research team led by NCKU distinguished professor of life sciences Dr. Tzen-Yuh Chiang used micro-organisms of bacteria and fungi for the biological control to set up a stable ecological balanced simulation system in only two weeks.

Next, we will establish SOPs for different combinations of fishes and plants to achieve maximal economic yields.

Aquaponics system is a new concept in the field of organic farming, according to Chiang who added that now in Japan the symbiotic system also provides healing benefits in interior design.

He explained, aquaponics is a system for producing food that combines raising aquatic animals with hydroponics (growing plants in water) in a symbiotic environment.

In aquaponics, water from the fish tank is pumped to the hydroponics system where the fish waste is broken down and becomes a nutrient for the plants.

Then, the water is re-circulated to the aquaculture environment.

Chiang also said, the ecosystems varied in different combinations of fish and plant at different scales. The amount of feed and biological control also need to be adjusted to fit different designs.

“In the coming future, we will establish SOPs and customize the acquaponics system, allowing people to keep an acquaponic garden at home,” according to Chiang.