NCKU hosts international symposium on public diplomacy and regional business

NCKU Press Center

National Cheng Kung University (NCKU), southern Taiwan, hosts an international symposium on public diplomacy and regional business, May 21, with representatives from United States, Japan, the Philippines, Thailand, and Taiwan to engage people in diplomacy and promote biotechnology.

As a platform for exchanges of private and public sectors, the symposium is organized by NCKU, and Southwestern Taiwan Office, Ministry of Foreign Affairs (MOFA).

NCKU President Hwung-Hweng Hwung welcomed the guests and said, “NCKU has been highly recognized for its efforts in the cooperation between the industry and the school.”

He also pointed out that Taiwanese orchids are well-known around the world and the fish breeding and intensive agriculture are also under crucial development.

NCKU would like to serve as a bridge between the private and the enterprises to have more chances to shine on the global stage, according to President Hwung.

The Deputy Mayor of Tainan City Her-Jiun Shu said, Tainan City Government will also play the role to facilitate 17 colleges in Tainan and help them to cooperate with the industry to develop more possibilities for the private industries.

The Southwestern Taiwan Office wishes to make use of the culture of Tainan and the communication conduit of NCKU to engage the people of southern Taiwan in diplomacy and increased awareness, said Gan-Cheng Ding, director of the Yunlin-Chiayi-Tainan Office of MOFA.

The highlight of the symposium is the Public diplomacy forum which includes two keynote speeches. One is titled “Opportunities and challenges for Taiwan as it participates in regional economic integrations,” and the other is “The new world economic order as seen from Taiwan.”

The two keynote speeches are followed by a discussion on regional economic activities and trade, and cultural exchanges to reveal the efforts of the ministry, including the Trans-Pacific Partnership Agreement (TPP) and APEC Business Travel Card.
French students sing in Chinese singing contest at NCKU

NCKU Press Center

A total of approximately 150 international students from more than 50 countries, including Japan, Korea, Germany, England, France, the U.S and Australia take part in the Chinese songs singing contest held by National Cheng Kung University Chinese Language Center (NCKU CLC), Taiwan, from May 12-16.

During 5 successive lunch break, the competitors sing to their heart content enjoying the fun of learning Chinese.

A group of 48 French students from Institute Polytechnique des Sciences Avancees (IPSA), France, who is currently studying at the Department of Aeronautics and Astronautics (DAA), NCKU, for a four-month exchange program also the participants in the singing contest.

They are divided into four teams performing four Chinese songs. Nontaillier Aristide from Versailles, France, said, “we have practiced the singing for about five weeks and I have a great time joining the contest.”

Aristide also pointed out that singing songs in Chinese is a good practice for learning Chinese.

Decapeyre Laeticia, another student from IPSA, showed what she has learned in NCKU CLC on stage and had a great time with her teammates.

Although their language ability is limited and the lyrics are often off, the French students have put on short dramas and dances to spice up the performance.

Petit-Phar Shannon is one of the stars on stage. He is energetic and charismatic, winning laughter and applauses from the audience.

Shannon who is first time to Taiwan never hesitates to express his love for Taiwan and he said, “I love Taiwan, especially the people in Taiwan who are friendly and willing to help foreigners. Also, the Taiwanese food is so good that I’d like to come back again soon.”

The singing contest is a great opportunity for the international students to use the language more, according to the organizer from the center.

The evaluation standard of the contest includes 45% of singing, including 10% of vocal, 15% of technique and 20% of pitch, 45% of song introduction, including 15% of content, 10% of tone, 10% of pronunciation and 10% of grammar, and 10% of creativity, such as costume, performance and self-composition.

The awarding ceremony takes place on the last day of the competition, May 16, where students with outstanding performance receive prizes.
To increase international students’ interest in learning Chinese language and motivate them to use the language, NCKU CLC regularly organizes language activities, including speeches, storytelling, oral reading, drama performance, and singing contest, allowing international students to have the opportunities to express themselves in Chinese.
Sculptures by international artists added to NCKU campus

Nacional Cheng Kung University (NCKU), southern Taiwan, commissioned two international artists to create three public works of art recently adding to the lively atmosphere.

The NCKU Art Center utilized the “post-renovation upgrade of the East side of the Cheng-Kung Campus” construction plan to commission 3 pieces of exterior sculpture.

Japanese artist Jun Honma and American artist Pete Beeman were tasked with creating three public works of art themed energy, in hopes of providing people with more positive energy.

The three sculptures respectively titled, the “Fountain of Life”, “Fire of Hope”, and “Eternal Light” are placed near the Department periphery.

Since its completion, the models of the final products have been portrayed in the window display of the Yun-Ping building.

The three public works of art use the natural elements of water, fire and light to fulfill the energy-themed criteria, as well as corresponding with the surrounding earth and wood of the campus’ environment.

Through the symbolism of warmth of light, gentleness of water, hope of fire, and wind as a messenger, the artworks attempt to exude positive energy.

Both the “Fountain of Life” and “Fire of Hope” were designed by Honma, who specializes in visual manipulation; the former is placed in an open green of the Department of Resources Engineering, and the Department of Material Sciences and Engineering for the latter.

As for Beeman’s “Eternal Light”, it can be found at the permeable pavement square of the Department of Computer Science and Information Engineering.

Honma’s work specializes in visual manipulation, and he has in the past participated in the internationally renowned Echigo-Tsumari Art Field, as well as taken part in National Ilan University’s public art installation project (國立宜蘭大學公共藝術設置案) and Wang Xi Elementary School’s “B-case Campus Area” art installation scheme (新北市網溪國小公共藝術設置案「B案校園區」).

On the other hand, Beeman’s niche is that of concise, metal sculptures. His works have been seen in Oregon and other places in America and Taiwan.
NCKU’s “post-renovation upgrade of the East side of the Cheng-Kung Campus” construction plan was completed at the end of 2013.
NCKU’s David robot shines at international competition

NCKU Press Center

A 135-cm tall humanoid robot called David 2 developed by a Tainan-based National Cheng Kung University (NCKU) research team has brought home 2 gold, 4 silver and 1 bronze medals recently in the 2014 International Competition on Intelligent Humanoid Robotics.

The research team currently consists of 9 students, which is led by Distinguished Prof. Tzuu-Hseng S. Li of Department of Electrical Engineering at NCKU.

The Huro Cup in the 2014 International Competition on Intelligent Humanoid includes categories of Sprint, Penalty Kick, Obstacle Run, Lift and Carry, Weight Lifting, Basketball, Wall Climbing, and Marathon.

David has won 2 gold medals in the categories of Life and Carry and Basketball, respectively; 4 silver medals in Sprint and Obstacle Run; 1 bronze medal in Climbing, according to Prof. Li.

Moreover, David stands 135-cm tall and is able to lift a barbell weighed over 4 kilograms, which makes him the most eye-catching humanoid robot in this year’s grand event.

Prof. Li said, David is equipped with 33 motors which can provide the necessary force in joint motion and its feet and waist structures are widened to help him to keep his balance.

David is also designed with a built-in camera to identify the environment and be able to fetch the ball and shoot, and lift the barbell as well, according to Prof. Li.

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Wall painting created by NCKU students to raise ecological awareness

NCKU Press Center

A group of students recruited by National Cheng Kung University (NCKU) Green Toes Society paint the wall on campus to raise ecological awareness among the students. They finished the outline of the art work they created on May 27 and will continue the rest of the painting in the coming few weeks.

The wall located next to the dormitory of Shang-Li Campus is on one of the busy road through campus and after finishing the outline, the picture on the wall has drawn much crowd.

The painting includes the diversified ecosystems to arouse the general concern on the environment and the

The volunteer students bring their painting tools and paint with them and start to paint the wall, 25 meters wide and 1.5 meters high.

The wall painting featured in a sustainable environment depicts a wonderful oasis in the middle of skyscraper city.

Also, factories and industry facilities are includes in the painting to remind people that the endless desire to exploit natural resources will lead to annihilation.

Ya-Ting Yu (雅庭), a student from the Department of Environmental Engineering, said, to participate this activity remind me the relationship between humans and natural environment.

She also said, the wall painting is expected to draw attentions from passers-by and arouse the environmental awareness on campus.
E-learning forum Asia kicks off at NCKU

National Cheng Kung University (NCKU), southern Taiwan, hosts the eLearning Forum Asia 2014 from May 28 to 30 with approximately 250 international scholars from Norway, UK, Canada, Singapore, and China.

NCKU Vice President Dr. Hong-Sen Yan on behalf of President Hwung-Hweng Hwung welcomes the guests and said, NCKU as one of the most prestigious universities in Taiwan has 9 colleges, 40 departments, 82 graduate institutes, and 54 research centers.

Dr. Yueh-Min Huang, a distinguished professor from the Department of Engineering Science at NCKU, as the chair of the eLearning Forum Asia 2014 on behalf of the organizing committee welcomes the participants from the world.

He said, in this age of advanced information technology and information explosion, people share the learning material, knowledge and ideas, to further expand learning opportunities and resources.

Recently Massive Open Online Courses (MOOCs) become e-Learning international trend, and global learning will usher us into a new era of e-learning, according to Huang.

The forum themed “Open Courses & Open Platforms for Learning” offer excellent opportunities for members of the educational community to come together to connect and share their experiences and approaches in open education.

The topics include practice of open course, open platform for e-Learning, open education issue and opportunity, MOOC curriculum design and practice, mobile and ubiquitous learning, and web-based learning.

Prof. Frode Eika Sandnes from Oslo and Akershus University College of Applied Sciences, Norway, said, we need to make e-learning available to all sorts of people because the people who are particularly attractive to e-learning for flexible education are mature students.

Dr. Nick Rushby, the editor of British Journal of Educational Technology (BJET), noted that a number of problems not least the implications for Big Data and for the significant ethical issues they raised.

In his talk, he refers to an international survey BJET carries out to explore the trends and issues that learning technologists across the world think are important, said Dr. Rushby who has been working in the area of educational and training technology for over 43 years.
NCKU chair professor receives Y. Z. Hsu Scientific Award

NCKU Press Center

National Cheng Kung University (NCKU)

Department of Biochemistry and Molecular Biology

Chair Professor Dr. Ming-Chi Chang has been given the Y.Z. Hsu Scientific Award in the bio-medical category during the announcement of award winners of the 6th Y. Z. Hsu Scientific Award.

The award recognized Dr. Chang’s great achievements in the development of anti-Interleukin-20 (IL-20) monoclonal antibody that treats osteoporosis, which is also marked Taiwan’s record-breaking technology transfer deal to a Danish drugmaker Novo Nordisk.

Set up by the Far Eastern Y.Z. Hsu Science and Technology Memorial Foundation, the biennial Y.Z. Hsu Scientific Award aims to encourage interactions between the industry and academia, as well as enhance the application of science and technology.

The award targets products or technology developed by researchers at domestic universities, incubation centers or research institutions, rewarding specifically those who have already applied for patents.

The advisory committee will then pick a winner who fulfills a specific theme based on each category, including nano science and technology, communication and optoelectronics, bio-medical technology and green technology.

Dr. Chang’s excellent performance in academic research has brought her numerous awards, including Ho Chin-Tui Award, the Wang Ming-Ning Award which is the most prestigious award in Taiwan’s medical field and 2013 Taiwan BIO Innovation of the Year Award.

Dr. Chang has been committed to developing new medical drugs in the long term with outstanding achievements. Her research interests are on immune disorders such as autoimmunity, osteoporosis and cancers, as well as the development of new medical drug.

Dr. Chang attributes her current success to her working experience in United States of America as well as the research environment and excellent research teams provided to her by NCKU, thus enabling her to practice and experiment her innovative ideas.

Besides, Dr. Chang revealed her research direction was set based on the creating benefits for patients and market needs, while expressing her gratitude to her highly flexible students who have in turn allowed her to continuously accept challenges and meet targets.

After graduating from University of Texas Southwestern Medical School with a postdoctoral degree in
immunology, Dr. Chang worked for two US-based biotechnology firms Genetech and Amgen in developing new medical drugs. In 1999, Dr. Chang returned to NCKU Hospital to take on the position of professor.

Other than nurturing talents in biotechnology field, Dr. Chang also actively pursues research on new medical drug development, resulting in approximately 30 new medical drug patents obtained in the USA and other countries in the world.

As Dr. Chang’s research results show that IL-20 is an indispensable factor of bone cell differentiation, she found that high concentration of IL-20 in serums of patients with osteoporosis can cause bone loss.

Hence, she took a step further to develop antibodies that inhibit IL-20 and proved its effect of treating osteoporosis on mice.

The results of this research were published in the Journal of Experimental Medicine in September 2011, thus attracted great attention from the international academia and biotechnology firms.

The chief editor of the journal Nature Reviews Rheumatology interviewed Dr. Chang, in which the interview was published in the special column in the September 2011 issue. Her innovative discovery also became the cover story of the September 2011 4th edition of Science-Business eXchange journal.

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NCKU research team discovers new treatment for liver diseases

NCKU Press Center

A Tainan-based research team from National Cheng Kung University (NCKU) has discovered the pathogenesis of liver fibrosis and developed antibodies that reduce liver damage, inhibit hepatic fibrosis, and recover liver function.

Professor Ming-Shi Chang, PhD, Chair Professor of Biochemistry and Molecular Biology at NCKU, has led the team to make another breakthrough in their research on interleukin 20 (IL-20), the university revealed at a press conference on June 3.

Their research titled “IL-20 and IL-20R1 Antibodies Protect Against Liver Fibrosis” has been published in the May issue of Hepatology.

Currently, NCKU has been granted a patent in the United States of America, US 860347 B1, “Use of IL-20 Antagonists for Treating Liver Diseases”, which has attracted great interest from the biotechnology industry.

Hepatitis, fatty liver disease, and hepatotoxicity are some of the primary disorders that lead to the development of liver diseases, according to Professor Chang, who added that inflammation of the liver can evolve into liver fibrosis and cirrhosis, and that patients with liver cirrhosis at the final stage often develop liver cancer.

Inflammation is the source of many diseases, said Professor Chang. She also said that IL-20 is involved in several inflammatory diseases.

Professor Chang’s team discovered that IL-20 is an important cause of liver diseases, and they confirmed that the liver tissue of patients with liver fibrosis, liver cirrhosis, and liver cancer have significantly higher levels of IL-20. IL-20 causes liver inflammation and increases the amount of extracellular matrix, thus causing liver fibrosis and cirrhosis.

Therefore, Professor Chang went a step further by developing an antibody that inhibits IL-20, which has been tested and confirmed to effectively inhibit liver cirrhosis in mice and to attenuate the fatty liver disease resulting from the inflammation caused by the accumulation of visceral fat. The antibody also significantly recovers the liver function of mice, as attested by reduction of ALT and AST, which are the indicators of liver function.

IL-20 is a protein secreted by the human immune system, Professor Chang said. An excessive amount of IL-20 can damage body tissue and, therefore, lead to many diseases such as osteoporosis and a variety of liver diseases.

Most liver diseases result from liver damage caused by long-term chronic hepatitis. Patients with liver disease include people infected with the hepatitis B and C viruses, as well as alcoholic hepatitis and toxin-induced hepatitis.

Repeated or prolonged chronic hepatitis can seriously damage liver cells. This damage stimulates fibroblasts in the
liver to produce collagen fibers, which are then deposited in the liver and fill up the empty spaces left by dead hepatocytes. Finally, this fibrosis causes liver cirrhosis.

Professor Chang and her research team observed that patients with liver fibrosis, liver cirrhosis, and liver cancer also had high levels of IL-20. After investigating this phenomenon, they discovered that IL-20 activates hepatic stellate cells and stimulates transforming growth factor (TGF)-beta1, tumor necrosis factor (TNF)-alpha, and Type I Collagen in these cells to increase the accumulation of extracellular matrix.

Because IL-20 is a protein secreted by the human body, Professor Chang and her research team developed anti-IL-20 monoclonal antibody, which inhibits the functions of IL-20 and stops IL-20-induced liver damage at the same time.

Professor Chang’s research has provided a solution to the therapeutic management of liver fibrosis and a new direction for treating liver diseases.

From the perspective of clinical medicine, anti-IL-20 monoclonal antibody could be an effective drug for treating liver fibrosis, fatty liver diseases, and liver cancer in the future.

Dr. Chang and her research team have also found that other than anti-IL-20 monoclonal antibody, monoclonal antibody that blocks the IL-20 receptor (IL-20 R1) can also protect the liver.

Liver disease is one of the most widely contracted types of diseases in Taiwan, and is widely known as one of the major types of diseases that cause a huge healthcare burden in developing countries all over the world.

At present, there is no marketed medication that can inhibit inflammation and stop liver fibrosis simultaneously.

The development of a new drug that can reverse liver fibrosis and prevent it from developing into liver cancer will benefit millions of patients with liver disease and create a huge business opportunity in the pharmaceutical sector of the world economy.